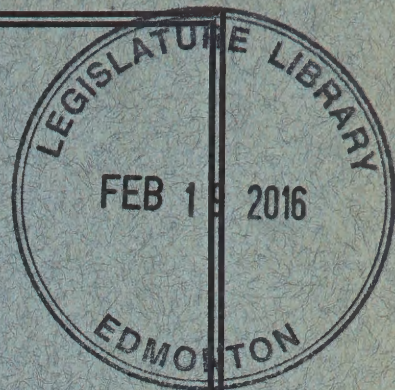


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ANNUAL REPORT
OF THE
Department of Public Health
OF THE
PROVINCE OF ALBERTA
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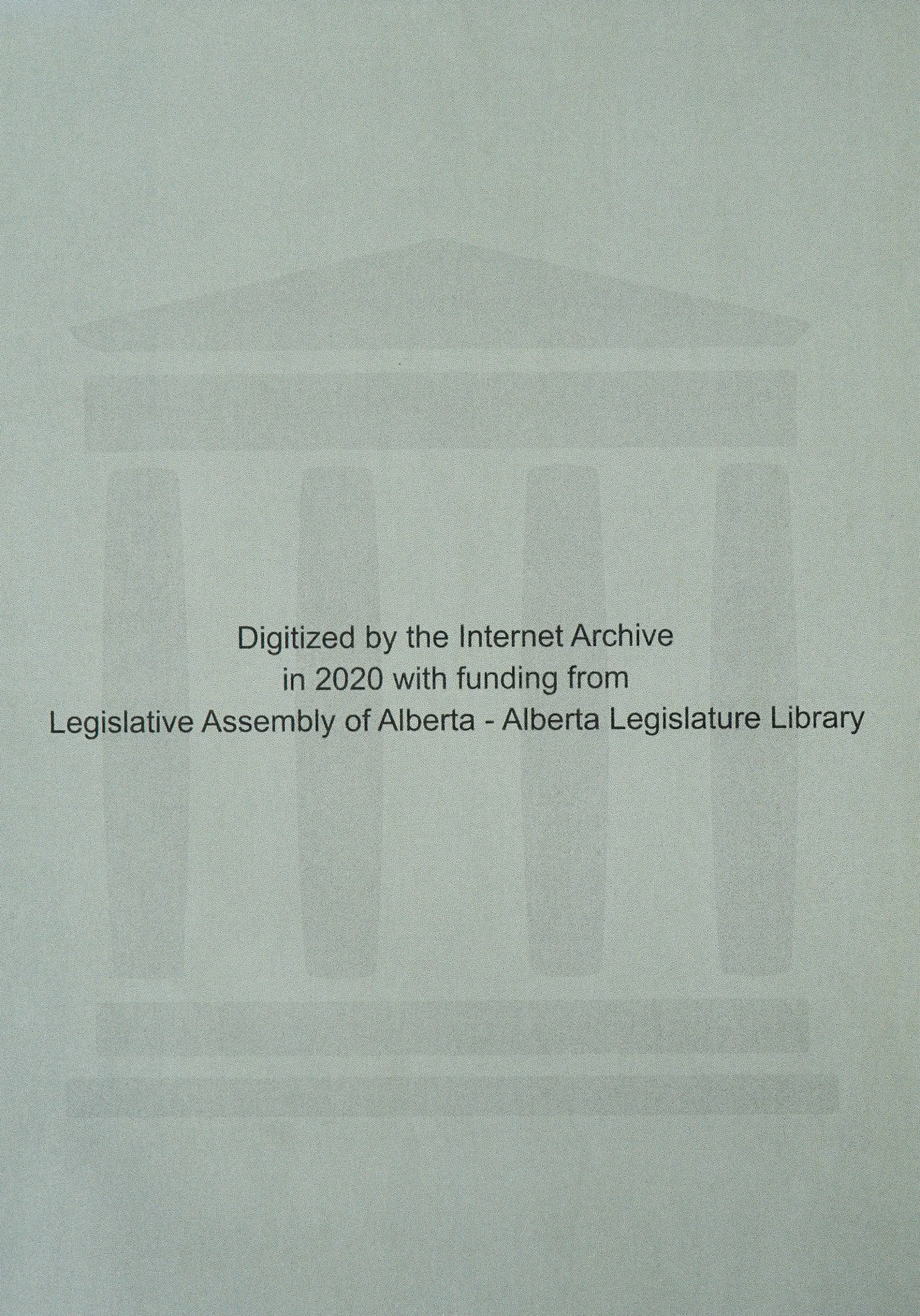
PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON:

Printed by W. D. McLean, King's Printer

1931

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ANNUAL REPORT
OF THE
Department of Public Health
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PROVINCE OF ALBERTA
1930

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EDMONTON:
Printed by W. D. McLean, King's Printer
1931

Edmonton, November 30, 1931.

To His Honour

W. D. WALSH,

Lieutenant Governor of the Province of Alberta.

SIR,—

I have the honour to transmit herewith the Annual Report of the Department of Public Health for the year 1930.

I have the honour to be, Sir,

Your obedient servant,

GEORGE HOADLEY,

Minister of Health.

Edmonton, November 30, 1931.

TO THE HONOURABLE GEORGE HOADLEY,
Minister of Health,
Parliament Buildings, Edmonton, Alberta.

SIR,—

I have the honour to submit herewith the Twelfth Annual Report
of the Department of Health.

I have the honour to be, Sir,

Your obedient servant,

MALCOLM R. BOW, M.D., C.M., D.P.H.,
Deputy Minister.

TWELFTH ANNUAL REPORT OF THE PROVINCIAL DEPARTMENT OF PUBLIC HEALTH, INCLUDING THE VITAL STATISTICS REPORT

THE DEPARTMENT.

Divisions:

1. Communicable Diseases.
2. Public Health Education.
3. Hospital Inspection.
4. Laboratory.
5. Public Health Nursing.
6. Municipal Hospitals.
Charity and Relief.
7. Social Hygiene.
8. Sanitary Engineering and Sanitation.
9. Mental Hygiene.
10. Mental Health.
11. Institutions: Central Alberta Sanatorium (Keith).
Provincial Mental Hospital (Ponoka).
Provincial Mental Institute (Oliver).
Provincial Training School (Red Deer).
12. Vital Statistics.

A report giving a summary of the work of each of these divisions is included herewith.

THE ADVISORY COMMITTEE OF HEALTH.

The Advisory Committee of Health met on March 6, 1930, with the following members in attendance:

- Mrs. O. C. Edwards, Macleod, representing the Urban Women.
Mrs. J. H. Field, Spurfield, representing the Rural Women.
Dr. W. A. Wilson, Edmonton, representing the Medical Profession at large.
Dr. Geo. R. Johnson, Calgary, representing the College of Physicians and Surgeons.
Dr. A. F. Anderson, Edmonton, representing General Hospitals.
Dr. D. Gow, Calgary, representing Medical Health Officers.
Mr. A. T. Stephenson, Red Deer, representing the Municipal Hospitals.
Mr. H. E. G. H. Scholefield, Calgary, representing Rural Laymen.
Mr. E. Roper, Edmonton, representing the Urban Laymen.
Dr. J. J. McPherson, Castor, representing Rural Physicians.
Dr. M. R. Bow, Deputy Minister of Health, Chairman.

Dr. A. F. Anderson, Medical Superintendent of the Royal Alexandra Hospital, Edmonton, was appointed by the Minister of Health a member of the committee to take the place of the late Dr. Harry Smith, as the representative of General Hospitals.

The following questions were discussed by the committee:

- Provincial Hospital Regulations.
Medical Service in Rural Districts.
Nursing Service in Rural Districts.
District Health Organization.
Pasteurization of Milk.
Distribution of Vaccines and Sera.

Immunization of Children against Preventable Diseases.
Surgical Operations.
Isolation Hospital Grants.

The following resolutions were adopted by the committee:

1. "That in our opinion no nurse should be allowed to act as scrub-up nurse in the labor room until such time as she has had her operating room training."
2. "That this meeting go on record as being desirous that the necessary machinery be established to organize post-graduate operating room training for nurses, with the ultimate object that the Hospital Regulations embody a section requiring all hospitals in the province to employ operating and labor room supervisors who have met the requirements as outlined in the post-graduate course."
3. "That inasmuch as control of contagious disease is one of the primary functions of state and municipal health departments and as the provision of adequate Isolation Hospital facilities is a means to that end, and as the cost of institutional care of persons suffering from contagious disease is, by the nature of things, unduly high, it is the opinion of this Committee that the Government should assist the municipal authorities in carrying out their obligations in this regard in a more generous way than is provided in the usual grant of fifty cents per patient per day."
4. "That this Committee, after having considered the draft of proposed enabling legislation in connection with municipal districts and school districts engaging in a larger measure in health activities, is of the opinion that this is a step in the right direction and that further action should be taken to supplement this by providing for compulsory medical inspection of all school children in the Province."
5. "That in the opinion of this Committee the Department of Public Health would be well advised to supply through selected depots throughout the Province all treatment sera free."
6. "That a vote of thanks be extended to the Department for the luncheon to members of the Advisory Committee."

REGULATIONS PASSED DURING THE YEAR.

Regulations Concerning Communicable Diseases, revised August 8, 1930.

Additions to the Regulations issued under The Hospitals Act, December 18, 1930.

Regulations issued under The Mental Diseases Act, April 22, 1930.

LEGISLATION PASSED DURING THE YEAR.

The Venereal Diseases Prevention Act Amendment Act, 1930.

An amendment provides that when any person is accused of acting as a doctor in violation of the Act the onus of showing that he is registered as a doctor shall lie upon him.

This Act came into force on the 1st day of July, 1930.

The Hospital Act Amendment Act, 1930.

An amendment provides that the Lieutenant Governor in Council may appoint a committee of inquiry to whom, or to any one or more of whom, any question respecting the conduct or management of a hospital may be referred, for the purpose of making inquiry with respect thereto and reporting the result of such inquiry to the Minister.

The Municipal Hospitals Act, 1929, Amendment Act, 1930.

Amendments make it clear that hospitals established under the original Act are subject to the provisions of The Municipal Hospitals Act, 1929.

The following Acts are administered by the Department:

- (1) The Public Health Act.
- (2) The Vital Statistics Act.
- (3) The Hospitals Act.

- (4) The Municipal Hospitals Act.
- (5) The Private Hospitals Act.
- (6) The Chiropractic Act.
- (7) The Venereal Diseases Prevention Act.
- (8) The Solemnization of Marriage Act.
- (9) Mental Defectives Act.
- (10) The Mental Diseases Act.

NEW UNDERTAKINGS.

Arrangements were completed during the year to establish two full-time health districts—the Red Deer Full-time Health District and the Okotoks-High River Full-time Health District.

The following municipalities are included in the Red Deer Full-time Health District:

Municipal District No. 399, Lacombe, Blackfalds, Municipal District No. 400, Eckville, Municipal District No. 339, Red Deer, North Red Deer, Municipal District No. 371, Sylvan Lake, Municipal District No. 340, Innisfail, Penhold, Bowden. Office, Red Deer.

The following municipalities are included in the Okotoks-High River Full-time Health District:

Municipal District No. 189, Blackie, Okotoks, High River, Municipal District No. 191, Municipal District No. 158, Vulcan, Municipal District No. 159, Nanton, Cayley, Improvement District No. 160, Turner Valley, Black Diamond. Office, High River.

The staff of each Health District consists of a Medical Officer of Health who has taken special training in public health work, and who is in charge of the work in each district, a well qualified public health nurse, a secretary-technician who looks after the records and clerical work and who has received special training as a laboratory technician in order to qualify her to do the routine laboratory work required. The time of a qualified sanitary inspector is divided between the two districts.

The need for better organization and direction of rural health work has long been felt and is beginning to receive wide recognition. The object in the establishment of these full-time health districts is to demonstrate what can be accomplished by a staff of workers who have been trained in modern health methods, devoting their whole time and effort to a preventive health programme in a district embracing rural municipalities, towns and villages. The demonstration is to be carried on for a period of three years. The budget of each health district is \$10,000 per year, of which fifty per cent. is to be contributed by the Province, twenty-five per cent. by the rural and urban municipalities included, and twenty-five per cent. by the International Health Division of the Rockefeller Foundation.

NEW APPOINTMENTS.

Dr. C. A. Baragar, formerly Medical Superintendent of the Brandon Hospital for Mental Diseases, was appointed Commissioner of Mental Institutions and Director of Mental Health for the Province, and took up his work on September 8th.

As the title of his position indicates, Dr. Baragar has been given general supervision over all mental institutions in the Province and general direction of all mental hygiene activities carried on by the Department.

Dr. G. M. Little was appointed Medical Officer in charge of the Red Deer Full-time Health District on December 20th, duties to begin in the summer of 1931, on completion of a course of training at the School of Hygiene, University of Toronto. This course of training was made possible through the generosity of the Rockefeller Foundation in granting a Fellowship to Dr. Little.

Dr. W. G. Saunders was appointed Medical Officer in charge of the Okotoks-High River Full-time Health District on December 20th, duties to begin in the summer of 1931, on completion of a course of training at the School of Hygiene, University of Toronto. This course of training was made possible through the generosity of the Rockefeller Foundation in granting a Fellowship to Dr. Saunders.

Communicable Disease Division

(A. C. McGUGAN, M.D., *Director*)

The following table shows the number of cases of communicable diseases which have been reported in the Province in 1929 and 1930:

Disease	1929	1930
Anterior Poliomyelitis	29	150
Cerebro-spinal Meningitis	49	28
Chickenpox	2,482	1,826
Diphtheria	568	269
Encephalitis Lethargica	2	4
Erysipelas	126	69
German Measles	121	42
Measles	3,857	282
Mumps	2,785	1,302
Scarlet Fever	1,731	1,028
Smallpox	94	81
Tuberculosis (Pulmonary)	215	136
Typhoid Fever	114	69
Paratyphoid Fever	37	.....
Whooping Cough	1,214	1,246

TABLE No. 1

TOTAL DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA DURING THE YEAR 1930

Pneumonia (all forms)	467	Meningococcal Meningitis	30
Influenza (all forms)	130	Typhoid Fever	17
Pulmonary Tuberculosis	319	Erysipelas	19
Tuberculosis (all other forms)	87	Scarlet Fever	31
Diphtheria	30	Encephalitis Lethargica	16
Whooping Cough	52	Measles	13
Poliomyelitis	32	Mumps	3
Smallpox	0		

TABLE No. 2

DEATHS DUE TO COMMUNICABLE DISEASES IN THE CITIES OF EDMONTON AND CALGARY DURING 1930

EDMONTON			
Pneumonia (all forms)	50	Meningococcal Meningitis	6
Influenza (all forms)	16	Typhoid Fever	2
Pulmonary Tuberculosis	35	Erysipelas	4
Tuberculosis (all other forms)	25	Scarlet Fever	5
Diphtheria	2	Encephalitis Lethargica	1
Whooping Cough	1	Measles	0
Anterior Poliomyelitis	5	Smallpox	0
Mumps	2		
CALGARY			
Pneumonia (all forms)	68	Meningococcal Meningitis	11
Influenza (all forms)	16	Typhoid Fever	0
Pulmonary Tuberculosis	16	Erysipelas	0
Tuberculosis (all other forms)	6	Scarlet Fever	2
Diphtheria	1	Encephalitis Lethargica	6
Whooping Cough	9	Measles	1
Anterior Poliomyelitis	4	Smallpox	0

TABLE No. 3

DEATHS DUE TO COMMUNICABLE DISEASES IN THE SMALLER CITIES, TOWNS, VILLAGES AND RURAL DISTRICTS DURING THE YEAR 1930

Pneumonia (all forms)	297	Meningococcal Meningitis	11
Influenza (all forms)	98	Typhoid Fever	15
Pulmonary Tuberculosis	146	Erysipelas	15
Tuberculosis (all other forms)	32	Scarlet Fever	23
Diphtheria	27	Encephalitis Lethargica	7
Whooping Cough	36	Measles	9
Anterior Poliomyelitis	22	Smallpox	0
Mumps	1		

TABLE No. 4
INDIAN DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF
ALBERTA DURING THE YEAR 1930

Pneumonia (all forms)	52	Meningococcal Meningitis	2
Influenza (all forms)	15	Typhoid Fever	0
Pulmonary Tuberculosis	122	Erysipelas	0
Tuberculosis (all other forms)	24	Scarlet Fever	1
Diphtheria	0	Encephalitis Lethargica	2
Whooping Cough	6	Measles	3
Poliomyelitis	1	Smallpox	0

The totals from this table are also included in Table No. 1.

TYPHOID FEVER.

69 cases—17 deaths.

Section 42 of the Public Health Regulations outlines the measures for the control of typhoid fever required by the Provincial Board of Health. It must be emphasized that all cases of typhoid fever are contracted either from an active case of the disease or from a typhoid carrier. The typhoid bacillus is pathogenic for man only. The disease is usually either food-borne, water-borne or fly-borne, but the food and water must have been contaminated and the flies must have had access to human excreta, either urine or faeces. Adequate concurrent disinfection of the excreta from known cases is essential if the disease is to be controlled.

In time the carried menace can be eliminated if every patient is isolated until negative specimens of the stool and urine have been obtained.

The paratyphoid organism is found in the gastro-intestinal tract of both man and the lower animals. The folly of drinking water from open streams cannot be emphasized too strongly. All water from such sources should be boiled or chlorinated. In districts where typhoid fever is prevalent vaccination every two years is advisable.

SCARLET FEVER.

1028 cases—31 deaths.

Throughout the Province scarlet fever continues in a very mild form. Not infrequently a case is so mild that the affected individual attends school throughout the course of the disease. The suspicion of the teacher or parent is aroused only when desquamation appears. The disease has spread rapidly as a result of the difficulty in recognizing it in the earlier stages.

SMALLPOX.

81 cases—0 deaths.

Two outbreaks were responsible for the majority of the cases reported in 1930. In one instance the disease was brought in from a neighbouring state. In the other it was brought in from a neighbouring province. The disease spread rapidly through an unprotected population, and increased in severity as it spread. Considerable suffering and economic distress resulted. The outbreaks afford a striking object lesson of the necessity for periodic vaccination.

DIPHThERIA.

269 cases—30 deaths.

The diphtheria record for the year 1930 is an improvement over that of 1929. The total number of cases and the total number of

deaths for 1930 are about one-half of the 1929 totals. However, when one considers that the disease is a preventable one, a total of 269 cases with all the possible complications and a total of 30 deaths leaves much to be desired. When parents and municipal authorities co-operate to assure every child in this Province protection against the disease, then we may expect diphtheria to be classed among the rare diseases.

CEREBRO-SPINAL MENINGITIS.

28 cases—30 deaths.

Meningococcal meningitis is the only type of this disease reported. The discrepancy in the above figures suggests that some of the deaths from meningitis were caused by organisms other than the meningococcus.

PULMONARY TUBERCULOSIS.

136 cases—319 deaths.

The above total of 319 deaths includes 122 deaths reported among Indians. Cases of tuberculosis among Indians are not reported to this Department. The reporting of this disease is still far from complete.

ANTERIOR POLIOMYELITIS.

150 cases—32 deaths.

The late summer and early fall of 1930 produced a second outbreak of poliomyelitis in Alberta, although the epidemic did not reach the proportions of the 1927 epidemic. An adequate emergency supply of convalescent serum is being kept at various points throughout the Province.

MEASLES.

282 cases—13 deaths.

The measles record indicates a decided improvement over the previous year, when 3,857 cases and 77 deaths were reported.

WHOOPING COUGH.

1246 cases—52 deaths.

Whooping cough still continues to rank high among the serious communicable diseases in the Province. Isolation of cases and vaccination of contacts are among our most effective means of control.

Mr. Zalizniak, health inspector, visited 268 districts, vaccinated 1,879 individuals, immunized 1,069, made 39 special investigations, and carried on an educational programme in public health work during the year.

Communicable Disease	Total Cases	Total Deaths	Cases per 100,000	Deaths per 100,000
Anterior Poliomyelitis	150	32	22.9	4.8
Cerebro-spinal Meningitis	28	30	4.2	4.5
Pneumonia (all forms) .....	....	467	.....	70.8
Influenza (all forms) .....	....	130	.....	19.8
Pulmonary Tuberculosis	215	319	32.6	48.3
Pulmonary Tuberculosis (exclusive of Indians) .....	....	173	.....	26.2
Diphtheria	269	30	40.7	4.5
Whooping Cough	1,246	52	188.8	7.8
Smallpox	81	....	12.3	....
Typhoid Fever	69	17	10.4	2.6
Erysipelas	69	19	10.4	2.9
Scarlet Fever	1,028	31	15.6	4.7
Encephalitis Lethargica .....	....	16	.....	2.4
Mumps	1,302	3	197.3	4
Measles	282	13	42.7	1.9

DEPARTMENT OF PUBLIC HEALTH

VACCINE AND SERA DISTRIBUTED DURING 1930

Smallpox Vaccine	21,180 points.
Diphtheria Antitoxin	2222- 1000 units.
.....	248- 2000 units.
.....	186- 5000 units.
.....	239-10,000 units.
.....	496-20,000 units.
Diphtheria Toxoid	1249- 1 person.
.....	570- 6 persons.
.....	595-12 persons.
Schick	150-1-25 persons.
Scarlet Fever Antitoxin	125-15 c.c. syringe.
.....	370-15 c.c. vial.
.....	1718-2 c.c. syringe.
Scarlet Fever Toxin	301-1 person.
.....	444-6 persons.
Dick	111-1-10 persons.
Tetanus	26-1500 units.
Anti-Meningitis Serum	143-20 c.c. vial.
Pertussis Vaccine	18-20 c.c. P.D. & Co.
.....	13-5 c.c. P.D. & Co.

GERMAN MEASLES

1930	Sex		MONTHS												AGES						TOTAL		
	M.	F.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-24	25-44	45-59	60-69	Not stated	
Cities:																							
Drumheller	1												1			1							
Towns and Villages	13	12				1					1	2	15	4	3	4	13	4	1				
Rural Districts	1	4		2				1				2				1	2	1				1	
Totals	15	16		2		1		2		1	1	4	16	4	3	6	15	5	1			1	
City of Calgary																							7
City of Edmonton																							4
Total cases in Province																							42

SCARLET FEVER

Cities:	109	124	41	31	34	30	23	11	19	7	7	10	8	12		44	124	39	21	5			233
Calgary	2	3						1				1	2	1		1	4						5
Drumheller	91	100	31	40	24	15	14	15	3	3	7	12	12	15		24	127	30	9	1			191
Edmonton	31	29	20	17	7	5	4			3	1	3				17	28	11	4				60
Lethbridge	1	1									1						11						2
Red Deer	4	9	1		1				1	4	7					2	11		1				13
Medicine Hat		4			2				1								4						4
Wetaskiwin	111	112	48	20	38	28	23	14	13	3	5	9	11	11	1	42	105	27	13	3			223
Towns and Villages	153	144	83	47	30	15	24	15	13	5	17	11	26	11	5	43	185	34	16				297
Rural Districts																							
Totals	502	526	225	155	136	93	88	56	50	25	45	46	59	50	6	173	589	141	64	6	1	48	1028

Public Health Education Division

(F. T. COOK, *Lecturer.*)

Health educational work was carried on during the year along the already established lines, though on a more extended scale, and several new types of work were undertaken.

During the last two years a collection of health posters has been assembled for general educational purposes. These posters illustrate many of the fundamental laws and principles of health, and have been collected from Great Britain, the United States and Canada. Many of them have been shown at conventions and various health workers have been supplied with information concerning this material.

The school teachers of the Province are more than ever looking to the department for guidance in their health educational work. To meet this demand posters, magazines, books and plays have been assembled and an approved list has been printed and distributed. We have been able in this way, at a very small cost, to make available a great deal of valuable health information. This particular work has had the enthusiastic endorsement of school inspectors, normal school staffs and teachers.

Four exhibits were held during the year, one each at the annual United Farmers of Alberta convention at Calgary, the Stettler agricultural fair, the annual exhibition at Edmonton and the Canadian National Exhibition at Toronto. The exhibit at Toronto featured the travelling clinic and attracted a great deal of attention in the east. At the Edmonton exhibition an entirely new display of pictures, posters and charts was shown.

A new feature during the year was a series of radio talks given fortnightly, during the homemakers' hour, by different members of the staff over CKUA.

Two bulletins of more than ordinary interest and importance were published by the Department, one on cancer and the other on mouth hygiene.

The bulletin, "What you should know about Cancer," has been distributed throughout the Province. The occasion of the bulletin on mouth hygiene, "Guard your Health," was the Province-wide campaign, beginning on February 17th. The bulletin is one of the best of its kind, and has been widely circulated.

The dental hygiene campaign was carried on by the Canadian Dental Hygiene Council, the Alberta Dental Association and the Department co-operating with Dr. Harry S. Thompson, who was in charge of the campaign. The dentists of the Province gave freely of their time in examining thousands of school children, and altogether it has proved one of the most thorough and complete campaigns ever carried on in the Province.

During the early part of the year "The Alberta Mothers' Book," prepared by Dr. Margaret Owens, was published, and about 5,000

copies have been distributed. This book presents information, in simple terms, which should be in the hands of every mother, and its publication has met a long felt need.

The public health lecture service has been carried on along much the same lines as in previous years, but owing to the public demand the service has been extended to cover a larger number of districts. During the year 175 lectures were given in 112 different places to 19,300 people.

The lecture service of the nursing branch, on home nursing and first aid, Miss Conroy, lecturer, was also carried on during the year, when 169 lectures were given in 81 different places to 4,756 people, mostly women.

In addition to the above mentioned lectures, the various members of the professional staff of the Department have given numerous addresses and lectures during the year.

The demand for health education is steadily growing, and in some cases lectures are booked months in advance.

Hospital Inspection Division

AND

Medical Inspector's Report of Operations

(E. A. BRAITHWAITE, M.D., *Inspector of Hospitals*)

During the year I inspected all the approved Hospitals in the Province.

The total number of operations, taken from the weekly hospital operation reports was 23,752, and the number of deaths following operations, 513.

The following is a list of operations performed and deaths which occurred in the approved, municipal and private hospitals during the year 1930:

	Approved H.	Deaths	Municipal H.	Deaths	Private H.	Deaths
GENERAL:						
Abscess	824	12	149	2	10	0
Adenectomy	13	0	2	0	0	0
Adhesions	187	2	19	0	0	0
Albee's Operation	1	0	0	0	0	0
Amputation	290	8	125	6	3	0
Anus	3	2	2	0	0	0
Ankylosis	6	0	0	0	0	0
Appendectomy	3827	86	944	34	20	0
Arthroclasis	0	0	3	3	2	0
Arthrodesis	8	1	0	0	0	0
Arthroplasty	0	0	0	0	0	0
Aspiration	27	4	3	0	0	0
Bladder	5	2	0	0	0	0
Bone Graft	1	0	0	0	0	0
Bone Plating	2	1	0	0	0	0
Bowel	9	2	5	1	0	0
Bronchoscopy	4	0	0	0	0	0
Bunionectomy	22	0	2	0	0	0
Burns	1	0	0	0	0	0
Bursitis	1	0	0	0	0	0
Cancer	132	10	12	1	0	0
Carbuncle	15	0	1	1	0	0
Cauterization	24	0	8	0	0	0
Cecopexy	34	0	0	0	0	0
Cholecystectomy	303	17	61	2	1	0
Circumcision	351	0	56	0	2	0
Colopexy	5	0	0	0	0	0
Colostomy	19	9	5	2	0	0
Craniotomy	1	2	0	0	0	0
Curetting	78	3	14	0	0	0
Cystectomy	38	2	21	0	0	0
Cystoscopy	25	0	1	0	0	0
Cystotomy	317	8	12	0	0	0
Decompresia	9	3	0	0	0	0
Dilatation	18	0	1	1	0	0
Dislocation	50	0	11	0	0	0
Enterectomy	7	3	1	0	0	0
Epididymotomy	7	0	0	0	0	0
Evulsion Nail	5	0	3	0	0	0
Excision	89	0	25	0	0	0
Examination	121	2	21	0	0	0
Extraction Teeth	454	3	177	0	8	0
Fasciotomy	0	0	1	0	0	0
Fistula	38	1	3	0	0	0
Foreign Body	54	0	23	0	0	0
Fracture	832	9	150	0	3	0
Fulguration	38	0	0	0	0	0
Ganglion	3	0	0	0	0	0
Gastrectomy	8	3	0	0	0	0

	Approved H.	Deaths	Municipal H.	Deaths	Private H.	Deaths
Gastroenterostomy	71	10	9	3	0	0
Gastrostomy	6	2	0	1	0	0
Hammer Toe	5	0	0	1	0	0
Hare Lip	8	0	0	0	0	0
Hemorrhoidectomy	128	3	27	0	1	0
Herniotomy	532	12	88	2	2	0
Hydrocele	43	0	6	0	0	0
Ileocolostomy	12	2	0	0	0	0
Incision	287	5	44	6	2	0
Injection	5	2	2	0	0	0
Intussusception	20	0	0	0	0	0
Jejunotomy	20	3	0	0	0	0
Laminectomy	4	1	1	3	0	0
Laparotomy	89	38	58	5	4	0
Ligation	7	0	2	1	0	0
Lithotomy	5	0	0	0	0	0
Lobectomy	3	0	0	0	0	0
Manipulation	51	0	2	0	0	0
Nephrectomy	28	5	2	0	0	0
Nephrotomy	6	0	1	0	0	0
Neurectomy	3	0	1	0	0	0
Orchidectomy	3	0	0	0	0	0
Oesophagus	3	0	0	0	0	0
Osteomyelitis	81	1	0	0	0	0
Osteotomy	25	3	9	0	0	0
Paralysis	2	0	0	0	0	0
Peritonitis	24	16	9	3	0	0
Phlebectomy	3	0	0	0	0	0
Plaster Cast	125	0	14	0	0	0
Plastic	14	0	0	0	0	0
Pneumothorax	82	3	0	0	0	0
Polypi	4	0	0	0	0	0
Pott's Disease	1	0	0	0	0	0
Proctoscopy	26	1	4	0	0	0
Prostatectomy	75	3	5	1	0	0
Pruritus	17	0	0	0	0	0
Puncture	7	1	3	1	0	0
Pyloroplasty	0	0	0	0	0	0
Radical Cure	12	2	0	0	0	0
Removal	270	14	45	0	0	0
Repair	177	9	54	1	1	0
Resection	151	17	42	3	3	0
Sequestrectomy	12	1	3	0	0	0
Sinus	1	0	0	0	0	0
Skin Graft	34	0	1	0	0	0
Splenectomy	5	1	1	1	0	0
Suturing	344	3	73	1	0	0
Sympathectomy	3	0	1	0	0	0
Synovectomy	4	0	1	0	0	0
Synovitis	9	0	0	0	0	0
Tenoplasty	8	0	0	0	0	0
Tenotomy	16	0	1	0	0	0
Thoracotomy	9	0	1	0	0	0
Thrombosis	0	0	1	0	0	0
Thyroidectomy	281	8	7	0	0	0
Transfusion	83	7	6	0	0	0
Tumor	128	6	25	0	2	0
T.B.	36	0	9	1	0	0
Urethrotomy	12	0	0	0	0	0
Varicocele	12	0	2	0	0	0
Vasectomy	8	0	0	0	0	0
Ventral Suspension	1	0	1	0	0	0
Wounds	96	8	56	2	0	0
OBSTETRICS:						
Abortion	478	3	88	0	4	0
Adhesions	9	1	5	0	0	0
Cervix	109	0	15	0	0	0
Caesarean Section	53	1	6	0	0	0
Cauterization	39	0	2	0	0	0
Colporrhaphy	15	0	10	0	0	0
Colpotomy	5	0	0	0	0	0
Curretage	375	1	75	0	8	0
Dilatation	158	0	15	0	2	0
Examination	25	0	8	0	0	0
Hysterectomy	148	9	19	0	1	0
Induction Labor	7	4	4	0	0	0
Insertion Radium	85	0	1	0	0	0
Oophorectomy	148	1	23	0	0	0
Ovariectomy	49	2	9	0	2	0
Ovariectomy	1	0	0	0	0	0
Panhysterectomy	0	0	0	0	0	0
Perineorrhaphy	126	0	17	0	0	0
Retroflexion	1	0	0	0	0	0
Retroversion	1	0	0	0	0	0

	Approved H.	Deaths	Municipal H.	Deaths	Private H.	Deaths
Salpingectomy	264	2	18	0	0	0
Salpingo-Oophorectomy	44	1	5	0	1	0
Sterilization	3	0	3	0	0	0
Super Pubic	11	0	0	0	0	0
Suspension	13	0	0	0	0	0
Stricture	2	0	0	0	0	0
Trachelorrhaphy	30	0	9	0	0	0
Uterus	122	1	25	0	0	0
EYE, EAR, NOSE, THROAT:						
Abscess	7	0	0	0	0	0
Adenoidectomy	60	1	16	0	1	0
Antrum	68	1	3	1	0	0
Cataract	90	1	0	0	0	0
Cautery	5	0	2	0	0	0
Cyclodialysis	0	0	0	0	0	0
Dacryocystectomy	9	0	2	0	0	0
Dilatation	6	0	1	0	0	0
Enucleation Eye	54	0	4	1	0	0
Esophagoscopy	1	0	0	0	0	0
Ethmoidectomy	4	0	1	0	0	0
Examination	1	0	1	0	0	0
Excision	9	0	0	0	0	0
Foreign Body	11	0	0	0	0	0
Glaucoma	5	0	0	0	0	0
Iridectomy	55	0	1	0	0	0
Laryngoscopy	1	0	0	0	0	0
Mastoidectomy	139	3	15	0	0	0
Myomectomy	20	0	0	0	0	0
Myringotomy	0	0	0	0	0	0
Paracentesis	23	0	2	0	0	0
Pancreas	7	0	0	0	0	0
Polypi	15	0	0	0	0	0
Ptosis	4	0	0	0	0	0
Pterygium	10	0	6	0	0	0
Plastic Eye	0	0	0	0	0	0
Sclerotomy	0	0	0	0	0	0
Sub Mucous Resection	84	0	0	0	0	0
Suturing	10	0	0	0	0	0
Synecotomy	62	1	3	0	0	0
Tenotomy	3	1	0	0	0	0
Tonsillectomy	2829	3	570	2	27	0
Tracheotomy	6	0	3	0	0	0
Turbineotomy	34	0	3	0	0	0
Tonsils and Adenoids	2232	1	357	0	58	0
Total number of operations in hospital					23,752	
Total number of deaths					513	
Percentage					2.16	

In addition to the operations classified above the following operations were performed by the travelling clinic:

T. & A.	761
Circumcision	5
Other minor operations	62
No deaths.	

Provincial Laboratory

(ALLAN C. RANKIN, C.M.G., M.D., D.P.H.,
Provincial Bacteriologist)

Fifty thousand three hundred and forty-seven examinations were carried out during the time under consideration, an increase of 9,674 examinations over the previous year. We have, as heretofore, received the co-operation of the various University departments, and the work done in the laboratory has been thus supplemented. A certain amount of routine biochemical work has passed through our hands and been referred to the Department of Biochemistry. The chemical examination of water and milk has been carried out by the Provincial Analyst.

The table indicates the nature and number of the examinations carried out.

SHORT REPORT OF THE WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1930			
Communicable Diseases:			Total.
Sputum	714		
Diphtheria	2,408		
Typhoid Fever	322		
Milks			3,444
Waters			1,365
Mothers' Milk			1,955
Miscellaneous Examinations			42
Urinalysis			2,525
Medico-Legal Examinations			512
Bloods for the Wassermann Test			17
Smears for the Gonococcus			13,541
Icterus Index Determination			2,904
Van Den Bergh Determination			2,909
Pathological Histological Material			131
Blood Smear Examinations			6,168
Chicken Blood Examinations			80
Cattle Blood Examinations			14,593
Post Mortem Examinations			161
Typhoid Vaccine (25 c.c. quantity) prepared			112
Autogenous Vaccines (25 c.c. quantity) prepared			274
B.C.G. Vaccine (10 c.c. quantity) prepared			149
Poliomyelitis Serum (15 c.c. quantity) prepared			134
			342
Total			50,347

NOTE: Post Mortems, Vaccines, Serums not included in total.

There were 1,955 samples of water examined bacteriologically, bacteriologically and chemically, and chemically, an increase of 239 samples. One thousand eight hundred and ninety-four water and milk containers were prepared and distributed, and 29,117 blood and special containers prepared.

One thousand three hundred and sixty-five samples of milk were examined bacteriologically, bacteriologically and chemically, and chemically, an increase of 289 samples.

Miscellaneous Examinations.—There were 2,525 miscellaneous examinations made during the year, an increase of 334 specimens; also 512 urinalysis performed.

Medico-Legal Examinations.—This work has included various examinations pertaining to criminal and other cases in the Province throughout the year.

Bloods for the Wassermann Test.—Thirteen thousand six hundred and ninety-two specimens for the Wassermann test were received. One hundred and fifty-one of these specimens were unsuitable for the test. Out of 13,541 blood specimens examined, 2,019 proved positive. There were 4,394 bloods received from Calgary and south of the Province, and 9,147 bloods received from north of Calgary and north of the Province.

Smears for the Gonococcus.—There were 2,904 examinations made during the period covered by this report.

Pathological Histological Material. — During the year 6,168 specimens were examined. This work is under the direction of Dr. J. J. Ower.

Chicken Blood Examinations.—There were 14,593 chicken blood examinations made for the diagnosis of bacillary white diarrhoea.

Cattle Blood Examinations for Contagious Abortion.—There were 161 blood examinations made for the diagnosis of contagious abortion.

Vaccines and Serums Prepared and Distributed.—Eleven thousand and nine hundred and fifteen cubic centimeters of vaccines were prepared. This included typhoid vaccine, autogenous vaccine and B.C.G. vaccine. Five thousand one hundred and thirty cubic centimeters of poliomyelitis convalescent serum was prepared and distributed.

Research Work.—Our research work with B.C.G. has proceeded during the year, and a preliminary report on the results of two experiments, involving 65 cattle, was communicated to the National Research Council in April. This work is still continuing.

ESTIMATED COMMERCIAL VALUE IF MINIMUM CHARGE WERE MADE

Sputum	714	\$2.00	\$ 1,428.00
Diphtheria	2,408	2.00	4,816.00
Typhoid Fever	322	2.00	644.00
Waters	1,955	15.00	29,325.00
Milks	1,365	5.00	6,825.00
Miscellaneous Examinations	2,525	3.00	7,575.00
Mothers' Milk	42	2.00	84.00
Urinalysis	512	2.00	1,024.00
Medico-Legal Examinations	17	5.00	85.00
Bloods for the Wassermann Test	13,541	5.00	67,705.00
Smears for the Gonococcus	2,904	2.00	5,808.00
Icterus Index Determination	2,909	1.00	2,909.00
Van Den Bergh Determination	131	1.00	131.00
Pathological Histological Material	6,168	5.00	30,840.00
Blood Smear Examinations	80	2.00	160.00
Chicken Blood Examinations	14,593	.10	1,459.30
Cattle Blood Examinations	161	.20	32.20
Typhoid Vaccine (25 c.c. quantity)	274	1.00	274.00
Autogenous Vaccines (25 c.c. quantity)	149	15.00	2,235.00
B.C.G. Vaccine (10 c.c. quantity)	134	3.00	402.00
Poliomyelitis Serum (15 c.c. quantity)	342	5.00	1,710.00
Total	50,347		\$165,471.50

NOTE: Some of these nominal charges are now considered too high, and a reduction would seem to be advisable. For purposes of comparison, however, with previous reports they are left as they were, and an additional commercial estimate, based on reduced and revised charges, is given for comparison in the future.

REVISED STATEMENT OF COMMERCIAL VALUE IF MINIMUM CHARGE
WERE MADE

Sputum	714	\$1.00	\$ 714.00
Diphtheria	2,408	1.00	2,408.00
Typhoid Fever	322	1.00	322.00
Waters	1,955	15.00	29,325.00
Milks	1,365	5.00	6,825.00
Mothers' Milk	42	2.00	84.00
Miscellaneous Examinations	2,525	3.00	7,575.00
Urinalysis	512	1.00	512.00
Medico-Legal Examinations	17	5.00	85.00
Blood for the Wassermann Test	13,541	5.00	67,705.00
Smears for the Gonococcus	2,904	1.00	2,904.00
Icterus Index Determination	2,909	1.00	2,909.00
Van Den Bergh Determination	131	1.00	131.00
Pathological Histological Material	6,168	5.00	30,840.00
Blood Smear Examinations	80	2.00	160.00
Chicken Blood Examinations	14,593	.10	1,459.30
Cattle Blood Examinations	161	.20	32.20
Typhoid Vaccine (25 c.c. quantity)	274	1.00	274.00
Autogenous Vaccines (25 c.c. quantity)	149	10.00	1,490.00
B.C.G. Vaccine (10 c.c. quantity)	134	3.00	402.00
Poliomyelitis Vaccine (15 c.c. quantity)	342	2.50	855.00
Total	50,347		<u>\$157,611.50</u>

Public Health Nursing Division

(KATE S. BRIGHTY, R.N., *Superintendent*)

Miss Mary Ellis Conlin, who served as a member of our district nursing staff for several years, received the appointment of Inspector of Hospital Equipment.

Miss Angela Fleming, district nurse, resigned from the staff on July 15th, to be married.

Miss Mina Phillips and Miss Marie Garde were appointed district nurses.

Within the municipal districts of Norma No. 515, Marquis No. 157, and Richdale No. 274, served by public health nurses, six new child welfare stations have been established. In Marquis municipality periodic dental clinics for pre-school and school children have been held with very gratifying results.

While the well recognized principles of public health nursing have been followed in connection with our work in all municipalities served, special features of the work have been emphasized in certain municipalities where a special need for such service has been felt.

In Norma municipality intensive work is done in the schools to serve a large school population, with one central child welfare station open once a week to serve the district.

In Marquis municipality it has been necessary to establish four child welfare stations in community centres. A splendid attempt has been made to cultivate among the children of school age a health consciousness. The results have been most successful. The nurse has appealed to their constructive and artistic sense, and by working in close co-operation with the teacher, the pupils have made very attractive health posters which have been exhibited at school fairs. Work has also been done in boys' and girls' clubs.

In Richdale municipality the nurse spends much of her time visiting in the homes, periodically conducting child welfare clinics, at times giving bedside care, first aid and supervising pre-natal and maternal care.

STATISTICAL REPORT

First inspection	1204	Number without defects	730
Second inspection	1214	Number vaccinations	32
Classroom inspections	68	Number Diphtheria Toxoid treat- ments	619
Number not vaccinated	1252		
Number with defects	1611		

DEFECTIVE CONDITIONS SUSPECTED

Vision	390	Tonsils	646
Hearing	48	Teeth	1081
Adenoids	342	Posture	66

SYMPTOMS NOTED

Eye conditions	8	Other skin conditions ...	29
Enlarged Thyroid Gland	217	Malnutrition	290
Nervous symptoms	18	Mental defectives	3
Pediculosis	29	Orthopaedic	2
Scabies	40	Communicable or infections diseases	135
Impetigo	2		

RESULTS OBTAINED

Glasses fitted	34	Demonstrations	11
Glasses refitted	17	Interviews	72
Tonsils removed	92	Child Welfare Clinics	29
Adenoids removed	80	Attendance, Child Welfare Clinics....	247
Dental treatment	229	Public lectures	10
School talks	122	Little Mothers' League, attendance	70
Home visits	395		

VISITING NURSE—ONE MUNICIPALITY

Number of calls made	154	Number of medical cases	96
Number of consultations	135	Number of surgical cases	25
Number of treatments	178	Number of obstetrical cases.....	5
Number of deaths	1		

DISTRICT NURSING.

In the new district of Sturgeon Lake the community has built a very attractive four-roomed log house for the nurse. An attempt has been made to incorporate the community of Sunset House, which lies east of the Little Smoky, into the Sturgeon Lake district. The Sunset House school has been visited, and the people made aware of the services of the nurse.

The boundaries of the outlying districts as originally established are no longer in evidence due to the extent to which settlement has taken place in recent years. However, without regard to the distance from which the settler may call for help, an effort is always made to answer the call promptly.

In the Battle River country the district of Deadwood was temporarily opened as a subsidiary to the Notikewin district. Due to the large number of people living there and the difficulty of communication, a nurse was placed in the district to work under the direction of Dr. Mary Percy during the winter months.

Six permanent districts are now served by nurses. One subsidiary district is served for the winter months only.

In the districts served by the three women physicians the appreciation of the people has often been expressed for the excellent advice and treatment rendered during the year. The district of Lac La Biche, served by Dr. Helen O'Brien, was closed as a provincial health district in August, and Dr. Helen O'Brien spent the remainder of the year supervising the districts of Pendryl and Wanham.

STATISTICAL REPORT

DISTRICT PHYSICIANS:

Number of calls made	1110
Number of consultations	1135
Number of deaths	25
Number of treatments	715
Number of medical cases	385
Number of surgical cases	213
Number of obstetrical cases	47
Number of dental extractions	87
Number of pre-natal examinations	97
Number of Child Welfare consultations	41

DISTRICT NURSES:

Number of calls made	1284
Number of consultations	1384
Number of deaths	15
Number of treatments	1142
Number of medical cases	972
Number of surgical cases	438
Number of obstetrical cases	101

CHILD WELFARE CLINICS.

Edmonton Child Welfare Clinic, 604 Civic Block, Edmonton.

A slight increase in attendance is shown at the child welfare clinic in Edmonton over the previous year. Comparisons show Edmonton leading in the number of home visits made. One hun-

dred clinics were held with an average attendance of 52, which is a higher average attendance than in previous years.

Medical students have attended the Friday clinic during the academic year, and a nurse in training from the Royal Alexandra Hospital has assisted at the clinics each week.

STATISTICAL REPORT

Total number in attendance at the clinic	5240
Total number of babies in attendance	4337
Total number of pre-school children	903
Total number of clinics held	100
Average attendance	52
Number of babies on roll	2080
Number of pre-school children on roll	797
Number of new babies admitted	793
Number of babies re-admitted	9
Number of babies transferred to pre-school	151
Number of babies discharged	84
Number of pre-school children discharged	157
Number of nurses' visits	4617
Number of pre-school children admitted	162
Number of pre-school children re-admitted	64
Number of out-of-town cases	117
Number of babies referred to family doctor	37
Number of pre-school children referred to doctor	32
Number of deaths of babies under one year	11
Number of deaths of babies in second year	1
Number of deaths of pre-school children	3

The following defects were found:

BABIES

Malnutrition	4	Mongolian idiot	1
Rickets	18	Congenital idiocy	1
Intestinal Indigestion	50	Congenital malformation	1
Intertrigo	41	Anorexia	2
Thrush	15	Pustules	1
Stomatitis	6	Pityriasis	1
Impetigo	13	Infected Umbilicus	1
Scabies	5	Granuloma of Umbilicus	2
Urticaria	2	Granuloma	2
Dermatitis	1	Enlarged Gland in Breast	1
Furunculosis	1	Infected eye	1
Miliria	16	Infected arm	1
Seborrhoea	1	Infected finger nail	1
Birthmarks	11	Abscess on foot	1
Umbilical Hernia	39	Mastitis	2
Inguinal Hernia	6	Chronic Bronchitis	1
Moist Umbilicus	6	Bronchitis	15
Phimosis	80	Congenital Heart disease	2
Hydrocele	3	Systolic murmur	1
Urethral Ulcer	1	Closure nasal duct	1
Bedner's Ulcer	1	Worms	2
Conjunctivitis	22	Burns	3
Stye	1	Tonsilitis	3
Otitis Media	10	Haemorrhoids	1
Geographical Tongue	3	Scurvy	2
Tongue-tie	15	Hypospadias	1
Enlarged Tonsils	4	Sunburn	2
Enlarged Adenoids	3	Laryngitis Stridulus	2
Enlarged Glands	3	Secondary Anaemia	1
Cleft Palate	1	Frost Bite	1
Club Foot	1		

PRE-SCHOOL CHILDREN

Rickets	4	Heart murmur	1
Intestinal Indigestion	2	Blepharitis	1
Stomatitis	1	Cyst on arm	1
Ringworm	1	Rheumatic nodules	4
Eczema	5	Deformity of foot	1
Scabies	7	Infected teeth	1
Jaundice	1	Infected toe	1
Intertrigo	2	Infected finger	1
Seborrhoea	1	Warts	2
Pustules	1	Burns	1
Pityriasis	2	Bronchitis	1
Furunculosis	1	Birthmarks	1
Otitis Media	5	Greenstick Fracture	1
Enlarged Tonsils	55	Injury to knee	1
Enlarged Adenoids	56	Nasal obstruction	1
Enlarged Glands	25	Stye	1
Carious teeth	15	Anorexia	8
Strabismus	2	Mongolian idiot	2
Granulated Eyelids	1	Mental Defective	1
Conjunctivitis	6	Celiac Disease	1
Umbilical Hernia	5	Epilepsy	2
Inguinal Hernia	5	Spastic Paralysis	1
Phimosis	4	Asthma	2
Hypospadias	1	Pin Worms	3
Enuresis	7	Swollen gums	1
Prolapse of rectum	1	Tongue-tie	1

Calgary Child Welfare Clinic, New Police Building, Calgary.

Clinics were held in three rooms in the Health Department three afternoons a week with nurses only in attendance and two afternoons with doctors and nurses.

Due to an outbreak of poliomyelitis, the clinic was closed from August 18th to September 15th.

One nurse in training from the General Hospital was in attendance two afternoons a week.

STATISTICAL REPORT

Total number of clinics held				93
Highest attendance				99
Lowest attendance				10
Average attendance				56
Total attendance to date.				
	Infants.	Pre-School.		Total.
Since clinic started, Nov., 1922	30,099	8,647		38,746
For 1930	4,164	1,090		5,254
Number on roll December 31, 1930	1,062	781		1,843
Number of cases examined by doctor.....	1,948	362		2,310
Number of new cases admitted during year..	589	174		763
Re-admitted after being discharged.....	1	45		46
Number of cases discharged.....	168	544		712
Number transferred to pre-school clinic.....		262		
Total number of visits made during year..... 2,446				
Total number of deaths 6				
Infectious diseases:				
Found at Clinic—Chickenpox				1
Whooping Cough				1
Found at home—Scabies				2
Feeding cases—Breast				1,102
Bottle				1,514
Mixed				456
Other				1,092

DEFECTS FOUND

	Pre-school.			Pre-school.	
	Infants.			Infants.	
Malnutrition	53	29	Eczema	31	7
Congenital malformation..	4	...	Impetigo	2	8
Eyes	19	19	Ringworm	...	2
Ears	8	9	Scabies	...	4
Tonsils	10	72	Hernia	20	2
Adenoids	5	41	Diarrhoea	34	...
Glands	5	6	Phimosis	6	1
Nose	1	8	Anaemia	1	...
Throat	1	3	Pediculosis	...	1
Teeth	...	271	Other conditions	23	32
Thrush	4	...	Cases referred to family physician	8	25
Rickets	5	3			

REPORTED FROM TREATMENT CLINIC

Dental Clinic:		
Number of cases treated		242
Appointments not kept		66
Eye, Ear, Nose and Throat Clinic:		
Operations—Tonsils and Adenoids		48
Appointments not kept		1
Treatments—Eye		397
Ear		131
Nose and throat		69

(Of these 100 were new cases)

Refractions for glasses, 2; doctor's home visits, 1.

Medicine Hat Child Welfare Clinic, Court House, Medicine Hat.

This child welfare clinic is showing steady growth. A number of children from the neighboring rural communities are now being brought to this clinic regularly.

The nurse in charge of this work has been devoting some of her time to assisting at the chest clinics, and this has been the means of increasing interest in the work.

Total number of clinics held	99
Highest attendance	31
Lowest attendance	1
Average attendance	15
Total number of nurse's visits	1051

	Infants.	Pre-school.	Total.
Total number in attendance	1,207	285	1,492
Number on roll	341	316	657
Number of new cases admitted	160	39	199
Number of cases re-admitted	3	17	20
Number transferred to pre-school	69	.....	69
Number referred to family doctor	30	19	49
Number discharged	14	80	94
Number of out-of-town cases	73	16	89
Number of deaths	2	1	3

DEFECTS FOUND

	Pre- Infants. school.			Pre- Infants. school.	
Hernia	16	4	Thrush	1	....
Phimosis	2	....	Diarrhoea	33	4
Congenital malformation..	2	2	Eczema	35	....
Eyes	15	....	Impetigo	2	....
Ears	6	4	Malnutrition	6	2
Throat .....	....	1	Rickets	4	....
Glands	4	6	Other conditions	31	25
Tonsils	5	47	Scabies .....	....	3
Adenoids	3	4	Anaemia .....	....	1
Teeth	2	61			

Cases seen by clinic doctors	279
Chest clinics held during year	2
Follow-up visits re chest clinic	76

TRAVELLING CHILD WELFARE CLINIC.

This type of work was conducted over a period extending from April 23rd to October 3rd.

Total number of clinics	121
Total number in attendance	2893
Total number of babies	1294
Total number of pre-school children.....	1589
Total number without defects	961

Provincial Travelling Clinic

Twenty-eight centres were visited, comprising three hundred and thirty-two school districts.

Commencing in April, a survey was made of each district by a public health nurse and a preliminary health examination given to each pupil. Following this, school districts were grouped and a centre established for the work of the clinic. A public building was then selected as a temporary hospital, and a local committee appointed to look after details and ensure community co-operation.

The staff of the travelling clinic during 1930 was as follows: A surgeon in charge, one physician, two dentists, four nurses and a truck driver.

Improved record forms were printed for the use of the clinic, and these have proved of great value for statistical purposes. These records have been the means of providing much additional information on the prevalence of goitre and other data of interest in the field of research.

Owing to the outbreak of poliomyelitis in the Province, it was necessary to withdraw the travelling clinic from the southern and central sections of the Province the latter part of August. In response to many requests for the service, the clinic was sent north, and completed the year's work in the Peace River country.

In order to meet the urgent requests for the service from the people of Fort Vermilion, the staff for the time being was divided, part going down the river to Fort Vermilion to work there, while the other members went into the Battle River country.

STATISTICAL REPORT.

SURVEY

First Inspection	6576	Number with defects	5110
Second Inspection	36	Number without defects	925
Number not vaccinated	2920	Number of vaccinations	449

SUSPECTED DEFECTIVE CONDITIONS

Vision	672	Congenital paralysis	1
Hearing	96	Cyst	1
Adenoids	1579	Boils	1
Tonsils	3703	Suspected heart condition	1
Teeth	3290	Phimosis	1
Trachoma	25	Gum conditions	148
Other eye diseases	81	Skin diseases	17
Enlarged Thyroid gland	1936	Suspected appendicitis	1
Tuberculosis	3	Acne	28
Nervous system	13	Eye strain	3
Pediculosis	25	Mental	9
Scabies	17	Orthopaedic	33
Ringworm	6	Malnutrition	848
Other skin conditions	190	Posture	1024

RESULTS OBTAINED

Glasses refitted	1	Dental treatment	3
Tonsils removed	8	Schoolroom talks	109
Adenoids removed	4	Home visits	10

TRAVELLING CLINIC

Examined by doctors	3329	Referred to family doctor	16
Recommended for T. & A.'s	1586	Referred to hospital	8
Recommended for circumcision	10	Prescribed for	702
Recommended for minor operation	97	Anaesthetics	805
T. & A. operations	761	Eye examinations	6
Circumcisions	5	Eye examination under anaesthetic..	1
Minor operations	62		

DENTAL CLINIC

Children examined by dentists	3451	Extractions	452
Children treated	926	Extractions under anaesthetic	1403
Fillings	763	Prophylaxis	5

POINTS VISITED

Mannville, Paradise Valley, Metiskow, Lakesend, Hemaruka, Altario, Sibbald, Sunnydale, Sunnynook, Peers, Strome, Killam, Halkirk, Byemoor, Rumsey, Irvine, Whitla, Orion, Wrentham, Del Bonita, Travers, Fort Vermilion, Notikewin, Whitelaw, Grimshaw, Spirit River, Valhalla, Beaver Lodge.

HOME NURSING AND FIRST AID.

Lectures in home nursing and first aid were given as usual by Miss Conroy, a member of the public health nursing staff. Meetings were held at 169 points, with an attendance of 4,756. In addition, the following service was rendered by Miss Conroy in the districts visited:

Visits and care in the home	81
Special night duty	5
Emergency maternity cases	3

The itinerary for this lecture service is arranged through this office in co-operation with women's organizations throughout the Province. The programme this year extended over the period from April 23rd to October 3rd.

In addition to the lecture itineraries, a number of addresses on various phases of our work have been given in districts visited during the year.

Opportunity was provided for these addresses mainly through the United Farm Women of Alberta, Women's Institute, University of Alberta student gatherings, teachers' conventions, conference on mouth hygiene, nurses in training, farm boys and girls' week at the University of Alberta, Calgary health week, farm women's week at Olds and Vermilion.

Through the University of Alberta broadcasting station, four radio talks were given on pre-natal and infant hygiene.

Staff representatives attended the following conventions: Public Health Workers' Association of Alberta, Alberta Hospitals' Association and Registered Nurses' Association of Alberta, United Farm Women of Alberta and Women's Institute, Dominion Convention of Registered Nurses at Regina.

First aid service was provided by this Branch at the Edmonton exhibition, with a provincial nurse constantly in attendance.

A public health exhibit was taken to the Canadian National Exhibition at Toronto. The feature of this exhibit was the use of miniature models to depict the four phases of the travelling clinic: (1) Clinic with its paraphernalia arriving at a country school; (2) examining day; (3) operating; (4) recuperation. There were, in addition, other interesting features of the exhibit. The Women's Institute of the Province co-operated with the nursing branch in showing this exhibit. A great deal of public interest was shown in the display, and much favorable comment was received from the press.

ALBERTA MOTHERS' BOOK.

Early in the year a booklet known as the "Alberta Mothers' Book" was issued by the Department. The booklet deals with the pre-natal and post-natal period and the first year of infant life. The advice given is couched in simple language illustrated by

diagrams and cuts. The publication was compiled by Dr. Margaret Owens, and incorporates the principles of infant feeding and teaching outlined in our provincial child welfare clinics. Five thousand of these booklets were distributed throughout the Province this year.

PRE-NATAL AND POST-NATAL LETTERS.

These letters, compiled by the Canadian Council on Child and Family Welfare, are distributed throughout the Province by this office. One hundred and ninety-three sets were mailed this year.

In November of this year the Council forwarded us the newly compiled post-natal letters which have been widely circulated and received with a great deal of appreciation by mothers in this Province.

PRIVATE HOSPITALS.

Fifty-two inspections of private hospitals and baby shelters were made during the year.

STAFF CONFERENCE.

The first annual staff conference was held in December, and proved most interesting and instructive.

I wish to express my appreciation of the invaluable assistance rendered the child welfare clinics by Dr. F. J. Folinsbee, Dr. R. B. Leitch and Dr. Mildred Folinsbee Newell of Edmonton; Dr. Roach of Calgary, and Dr. McLeod of Medicine Hat. Their splendid interest in the work of the child welfare clinics has been a most important factor in maintaining the high standard of service rendered to the public.

Deep appreciation is also expressed for the close co-operation which our nursing service has received from the United Farm Women of Alberta, the Women's Institutes and the Imperial Order of the Daughters of the Empire, the medical profession, the dental profession, teachers, the Red Cross Society, and welfare workers throughout the Province.

Hospitals Division

W. B. MILNE, C.A.,

Secretary of the Department of Health.

On December 31st, 1930, there were ninety approved hospitals in the Province.

The following approved hospitals were opened: Consort, Municipal; Daysland, Providence; Desmarais, St. Martin's; Jasper, Seton; McLennan, Sacred Heart; Peace River, Municipal; Taber, General; Banff, General.

The following approved hospitals were closed: Banff, Brett; Consort, General; Edmonton, Junior Red Cross; Oyen, General; Peace River, Irene Cottage.

The total grants for the year 1930 to hospitals and homes were \$439,571.50.

These hospitals with the addition of the Central Alberta Sanatorium had a total bed capacity of 4,043, divided as follows: General, 2,814; maternity, 666; isolation, 256; tuberculosis, 307.

On an estimated population of 660,000 in 1930 we had one hospital bed for every 163.2 of the population, or 6.1 beds per thousand population; 66,515 patients were treated during the year, receiving 882,887 days' treatment. This means that hospital treatment was provided in 1930 to ten per cent. of the population, or one in every 9.9 persons.

The average number of patients admitted daily was 182.2. The average number of days spent in hospital by each patient was 13.3, and if the Central Alberta Sanatorium, Junior Red Cross and S.C.R. patients were eliminated this would be reduced to an average of 11.4. The average number of patients in hospital daily was 2,418.9, or one in every 272.9 of our population. Each bed provided accommodation for an average of 16.5 patients during the year.

The nursing staff of these approved hospitals consisted of 441 graduates, 752 pupil nurses, and 235 other attendants.

There were twelve nurses' training schools in the Province, the number of graduates for the year being 184. Twenty-five dietitians were employed.

During the year 8,623 maternity cases were cared for in these approved hospitals, maternity cases comprising 13 per cent. of the cases admitted. Living births were: Male 4,309, female 4,190, a total of 8,499. Multiple births totalled 78, and there were 286 stillborn. The maternal deaths reported were 29, this being a maternal death rate of .34 per cent. of total maternity cases admitted and 3.5 per thousand living births.

The living births in Alberta in 1930 were 17,649. Therefore 47.6 per cent. of the total living births took place in the Government approved hospitals.

In the hospitals reporting, 21,787 general anaesthetics were administered, and eight deaths occurred from these.

One hundred and seventy-five autopsies were performed, and the infections developed in hospitals totalled 226, divided into: Medical 87, surgical 122, obstetrical 17.

Communicable diseases treated in hospital, excluding typhoid fever and T.B., were 1,359, typhoid cases amounting to 108; tuberculosis cases totalled 823, pulmonary 508, and other forms 315.

Among other cases treated in hospital there were 898 cardiac, 704 rheumatic, 376 goitre, 267 venereal, and 646 malignant.

There were 292 deaths within ten days of surgical operations and 466 deaths within forty-eight hours after admission. Communicable diseases accounted for 114 deaths.

The approved hospitals reported 113,600 laboratory examinations and 24,986 X-ray examinations.

The total operating expenditure of approved hospitals for 1930 was \$2,834,915.39. This included administration of \$224,938.45 operating \$2,277,885.32, and maintenance \$332,091.62. The expenditure classed as capital is mostly repayments of principal (\$126,730.45) on capital borrowing and interest, \$224,146.73.

Earnings of these hospitals amounted to \$3,502,748.93. On referring to the details of the earnings, it will be noted that the Alberta Government grant does not agree with the total paid by the Province. This is accounted for by the fact that homes have not been included, and some of the hospitals have presented their statements on their financial year covering a different period than the calendar year.

Of the earnings shown \$439,950.50 was Alberta Government grant; municipal and other grants, which includes amounts paid by municipalities to take care of deficits, amounted to \$441,841.66. Patients' fees earned amounted to \$2,151,320.29; donations amounted to \$74,581.20; taxes for municipal hospital purposes amounted to \$283,846.32, and \$111,208.96 was classed as sundry earnings.

The average cost per patient day was \$3.51; the average earnings per patient day was \$4.33. The average operating cost was divided as follows: Administration 7.9%, operating 80.4%, maintenance, 11.7%.

The statistical information that is given above has been obtained from financial and statistical statements which were requested from all approved hospitals for the year 1930. This is the second year that this information has been required, but a good deal of difficulty appears to be still experienced by some hospitals in completing the forms. The Hospitals Branch, therefore, can only present these reports as being in accordance with information furnished by the hospitals.

The Department appreciates the co-operation of the hospitals supplying the information and in the correction of the forms where that has been requested.

The following statements giving the details in connection with Alberta Hospitals are submitted:

No. 1: Bed capacity, number of patients, number of days, nursing staff, etc.

No. 2: Nursing statistics, cases treated, anaesthetics, autopsies, etc.

No. 3: Expenses of administration, operating, maintenance and capital repayments.

No. 4: Hospital earnings.

No. 5: Costs per patient per day, earnings per patient per day, and percentage of administration, operating and maintenance.

MUNICIPAL HOSPITALS.

Twenty-two municipal hospitals were in operation on December 31st, 1930.

This does not include sub-hospitals at Blackie and Craigmyle, as they are considered part of the hospital facilities at High River and Hanna districts.

A new municipal hospital was completed during the year at Peace River.

An addition was completed to the Innisfail Hospital, being provided for by a vote of the ratepayers on additional debentures.

A new district was organized and ratified by the voters comprising the Consort Municipal Hospital District. This hospital started operating under The Municipal Hospitals Act on the 1st day of August, 1930, and the work is being carried on in the hospital that was formerly known as the Consort General Hospital, this arrangement having been entered into as a temporary measure.

Statistics of the municipal hospitals will be found with the other approved hospitals of the Province.

STATISTICS OF ALBERTA HOSPITALS, 1930

Hospital	Bed Capacity				Patients Admitted for Treatment					Nursing Staff			No. graduated during the year	Dietitians		
	General	Maternity	Isolation	Tuber- culosis	Total	Private			Public		Graduates	Pupil nurses			Other at- tendants	Nurses training schools
						Private	Semi- Private	Male	Female	Number of days hospital							Aver. days stay in hospital	Aver. No. of patients in hospital daily
Athabasca Municipal	24	4	2	2	32	...	...	32	242	297	6,164	11.4	16.9	4	2	...
Banff, General	52	12	...	...	64	25	36	3	100	78	1,622	9.1	8.0	6	4	...
Barrhead, St. Elizabeth	6	3	1	1	11	1	10	...	130	110	2,484	10.4	6.8	2	2	...
Bassano Municipal	21	...	4	...	25	14	6	5	243	290	6,333	11.9	17.4	5	1	...
Bentley Community	4	4	...	1	9	1	8	...	72	77	1,095	7.4	3.0	1	1	...
Berwyn, W.I.	4	4	...	...	8	...	...	8	65	76	1,323	9.3	3.6	2	2	...
Bonnyville, K. H. Prettie	10	6	5	...	21	...	...	21	80	132	2,648	12.5	7.3	3	1	...
Bonnyville, St. Louis	16	7	...	5	28	6	6	16	111	132	3,296	13.6	9.0	3	2	...
Calgary General	167	23	...	...	190	26	54	110	2,339	2,931	64,947	12.3	177.9	15	106	Yes
Calgary Isolation	...	...	70	...	70	...	...	70	145	177	7,872	24.4	21.6	3	6	...
Calgary, S.A. Grace	...	36	2	...	38	3	4	31	179	568	10,427	14.0	28.6	7	2	...
Calgary Holy Cross	240	50	10	...	300	49	62	189	1,956	2,473	52,235	11.7	143.1	20	100	Yes
Calgary Junior Red Cross	40	...	...	...	40	...	...	40	52	57	12,359	113.4	33.7	5	5	...
Calgary, Central Alberta	...	...	210	...	210	...	...	...	197	188	74,454	193.4	204.0	...	...	...
Camrose, St. Mary's	39	11	...	...	50	16	34	...	455	441	7,897	8.8	21.6	6	15	...
Cardston Municipal	15	6	...	...	21	...	...	21	453	518	5,993	6.1	16.4	5	4	...
Castor, Our Lady of Rosary	30	...	...	...	30	7	17	6	165	283	4,295	9.6	11.8	5	3	...
Cereal General	10	...	...	...	10	...	...	10	51	108	1,478	9.3	4.0	2	2	...
Claresholm General	16	...	...	...	16	...	...	16	157	200	3,734	10.5	10.2	4	2	...
Cold Lake, John Neil	7	3	2	2	14	...	...	14	87	130	1,569	7.2	4.3	3	...	...
Coleman Miners' Union	13	...	...	...	13	...	...	13	187	56	2,274	9.4	6.2	3	1	...
Consort, Municipal	10	5	1	...	16	2	2	12	54	96	1,399	9.3	9.1	3	1	...
Coronation General	12	5	4	...	21	4	2	15	238	268	3,817	7.5	10.5	4	3	...
Daysland, Providence	25	5	...	...	30	4	26	...	86	136	2,245	10.1	6.2	6	5	...
Desmarais, St. Martin's	10	...	...	2	12	2	6	4	63	111	1,235	7.1	3.4	1	2	...
Didsbury General	7	4	...	...	11	...	...	...	107	186	2,534	8.6	6.9	4	...	...
Drumheller Municipal	78	15	2	...	95	19	61	...	1,114	934	21,392	10.4	58.6	7	18	...
Edmonton Beulah Home	30	6	...	...	36	...	...	30	71	158	4,314	18.4	11.8	2	2	...
Edmonton General	171	17	3	9	200	33	40	127	1,544	1,958	46,894	13.4	128.5	15	88	Yes
Edmonton Misericordia	137	32	6	...	175	33	46	96	1,456	2,248	42,307	11.4	115.9	11	63	Yes
Edmonton, S.A. Grace	...	21	1	...	22	3	6	13	87	224	4,213	13.5	11.5	3	6	...
Edmonton Royal Alexandra	290	92	...	...	400	48	52	300	3,242	4,355	96,010	12.6	263.0	23	149	10
Edmonton Isolation	...	...	100	...	100	...	...	100	319	314	15,959	25.2	43.7	7	14	3
Edmonton University (Civilian)	...	...	...	...	...	...	...	...	934	712	35,655	21.6	...	...	...	...
Edmonton University (S.C.R.)	...	...	...	...	...	...	...	...	610	61	31,728	51.5	242.5	43	80	18
Edmonton, University (Orthopaedic)	340	...	20	...	360	12	28	...	62	51	21,117	186.8	...	...	...	9

Edson, St. John's	15	6	...	...	21	3	9	244	217	4,565	9.9	12.5	5	
Elk Point Municipal	7	6	1	2	16	2	12	279	397	7,632	11.3	21.1	2	
Empress Cottage	17	...	...	17	17	...	...	183	224	3,983	9.7	10.9	3	
Fairview W.I.	6	3	...	...	9	9	...	107	125	1,803	7.8	4.9	2	
Fort Vermilion	15	1	...	...	16	6	10	27	39	1,778	26.9	4.9	2	
Galahad, St. Joseph's	12	4	1	...	17	5	6	101	151	2,395	9.1	6.6	1	
Gleichen General	5	3	...	...	8	2	2	5	6	102	9.2	.3	1	
Grande Prairie Municipal	29	5	1	4	39	5	...	474	596	12,440	11.6	34.1	...	
Grouard, St. Joseph's	20	...	2	2	24	6	18	98	102	2,637	13.2	7.2	3	
Hanna Municipal	44	10	2	4	60	26	28	420	638	10,597	10.0	29.0	2	
Hanna, Craigmyle Sub-hospital	6	3	...	...	9	1	2	56	100	1,514	9.7	4.1	1	
Hardisty, St. Anne's	19	1	...	...	20	4	12	131	219	3,420	9.7	9.4	2	
High Prairie Community	3	2	...	...	5	2	3	31	49	778	9.7	2.1	1	
High River Municipal	28	10	...	...	38	...	...	398	571	8,353	8.7	22.5	6	
High River, Blackie Sub.	25	12	...	...	37	...	37	250	338	7,292	12.5	20.0	1	
Innisfail Municipal	8	8	...	...	37	...	16	108	142	3,422	14.0	9.4	3	
Islay Municipal	12	3	1	...	16	3	6	7	109	97	2,009	9.8	5.5	5
Jasper, Seton	7	4	...	...	11	5	2	182	281	3,468	7.5	9.5	2	
Lacombe General	54	10	1	5	70	12	36	678	1,000	19,227	11.5	52.7	4	
Lamont Public	72	16	4	4	96	32	6	978	1,121	28,375	11.1	64.0	3	
Lethbridge, Galt	...	...	14	...	14	...	14	31	19	1,018	20.4	2.8	30	
Lethbridge Isolation	...	...	...	...	27	17	10	603	617	8,436	6.9	23.1	34	
Lethbridge, St. Michael's	20	7	...	...	27	17	10	603	617	8,436	6.9	23.1	1	
Lloydminster Municipal	24	12	2	2	40	...	...	449	642	7,628	13.6	40.6	2	
Macleod General	54	9	1	...	64	...	...	180	188	3,535	9.6	9.7	14	
Mannville Municipal	14	...	...	...	14	1	2	114	182	2,854	9.6	7.8	3	
Medicine Hat General	106	21	...	...	127	15	11	1,159	1,616	29,319	10.6	80.3	8	
Mundare, General	13	6	2	2	23	4	6	13	125	2,355	7.2	6.5	32	
McLennan, Sacred Heart	17	5	...	...	22	4	...	18	154	3,704	11.1	10.1	2	
Nanton, General	5	3	1	1	10	4	...	6	62	1,023	9.4	2.8	1	
Nordegg General	8	4	...	...	12	4	8	50	27	949	12.3	2.6	3	
Olds General	10	1	...	...	11	1	10	124	163	2,424	8.4	6.6	3	
Onoway Municipal	8	4	...	...	12	3	...	65	116	1,542	8.5	4.2	1	
Peace River, Municipal	9	3	...	...	12	3	...	201	169	4,617	12.5	12.6	...	
Pincher Creek, St. Vincent	5	7	...	...	12	7	...	122	139	2,456	9.4	6.7	3	
Provost Municipal	14	6	...	...	20	...	...	192	294	5,489	11.2	15.0	5	
Radway, St. Joseph's	16	...	...	...	17	3	...	134	164	2,612	8.8	7.2	2	
Red Deer Municipal	29	6	...	...	35	4	16	292	345	7,183	11.3	19.7	3	
Rimbey, St. Paul's	13	...	...	...	13	1	2	73	87	1,288	8.1	3.5	2	
St. Paul, St. Theresa	15	8	6	6	35	5	4	26	277	5,240	10.1	14.4	2	
Smoky Lake, Geo. McDougall	10	3	...	...	13	4	...	9	151	290	8.0	9.6	8	
Stettler Municipal	22	10	1	...	33	4	...	29	430	7,005	9.7	19.2	1	
Taber, General	5	5	1	...	11	...	...	51	51	565	5.5	1.5	5	
Trochu, St. Mary's	18	7	...	...	25	7	...	86	149	3,170	13.5	8.7	3	
Vegreville General	28	12	...	...	40	7	12	487	548	8,381	8.1	23.0	2	
Vegreville, R. M. Boswell	13	6	...	...	19	3	21	213	255	3,486	7.4	9.6	3	
Vermilion Municipal	12	8	...	...	20	...	...	203	400	7,102	11.8	19.5	...	
Viking Municipal	7	7	...	...	14	5	6	165	240	4,482	11.1	12.8	2	
Vilna, Our Lady's	13	4	1	1	19	4	2	96	174	2,197	8.1	6.0	1	

STATISTICS OF ALBERTA HOSPITALS, 1930—Continued

Hospital	Bed Capacity				Patients Admitted for Treatment							Nursing Staff			No. graduated during the year	Dietitians			
	General	Maternity	Isolation	Tuber- culosis	Total	Private	Semi- Private	Public	Male	Female	Number of hospital days	Aver. days' stay in hospital	Aver. No. of patients in hospital daily	Graduates			Pupil nurses	Other at- tendants	Nurses' training schools
Vulcan Municipal	14	6	...	...	20	...	...	20	181	313	4,283	8.7	11.7	6	...	...	...	...	
Wainwright Municipal	16	4	...	...	20	2	...	18	242	264	6,026	11.9	16.5	4	...	...	...	...	
Wayne General	9	4	1	...	14	2	4	8	142	114	3,173	12.4	8.7	2	...	1	...	1	
Westlock, Immaculata	24	6	...	...	30	5	6	19	317	286	4,141	6.9	11.3	4	...	1	...	...	
Wetaskiwin General	15	4	...	3	22	8	14	...	369	376	5,526	7.4	15.1	5	...	1	...	...	
	2814	666	256	307	4043	551	815	2467	29,665	36,850	882,887	13.3	2418.9	441	752	235	12	184	25
Excluding Sanatorium, Orthopaedic and S.C.R.	...	...	...	...	3640	...	...	...	...	...	...	11.4	2036.2	...	...	...	...	...	...

Name of Hospital	Grants		Patients' Fees	Donations	Tax Re-quisitions	Sundry Earnings	Total Earnings	
	Alberta Govt.	Municipal and others						
Athabasca, Municipal	\$ 3,032.00	.....	\$ 8,297.97	.....	\$ 8,184.47	\$ 167.00	\$ 19,731.44	Open 204 days.
Banff, General	811.00	.....	7,237.05	.....	.....	2.62	8,050.67	
Barrhead, St. Elizabeth	1,242.00	.....	6,551.00	.....	.....	.....	7,793.00	
Bassano, Municipal	3,166.50	.....	12,889.05	.....	14,770.34	2,680.37	33,506.26	
Bentley, Community	547.50	.....	3,270.00	63.50	.....	.....	3,881.00	
Berwyn, W.I.	661.50	.....	2,189.55	.....	.....	.....	2,851.05	
Bonnyville, Katherine H. Prettie	1,324.00	\$ 6,988.13	1,422.79	.....	.....	.....	9,734.92	
Bonnyville, St. Louis	1,648.00	.....	7,888.00	4,600.00	.....	.....	14,136.00	
Calgary, General	32,473.50	*79,501.33	150,391.05	.....	.....	2,261.25	265,217.13	
Calgary, Isolation	3,936.00	*34,789.50	3,075.35	.....	.....	.....	41,800.95	
Calgary, Salvation Army, Grace	5,213.50	.....	11,976.79	2,434.02	.....	1,537.00	21,161.31	
Calgary, Holy Cross	26,617.50	4,000.00	207,345.20	.....	.....	.....	237,962.70	
Calgary, Junior Red Cross	9,483.50	.....	935.75	9,798.63	.....	.....	20,217.88	
Camrose, St. Mary's	3,948.50	.....	21,743.90	500.00	.....	7,274.78	33,467.18	
Cardston, Municipal	2,996.50	.....	9,944.22	.....	16,140.40	7,755.57	29,836.69	
Castor, Rosary	2,147.50	.....	14,200.26	.....	.....	4,195.23	20,542.99	
Cereal, General	739.00	.....	4,205.00	.....	.....	.....	4,944.00	
Clareholm, General	1,867.00	950.00	10,838.65	.....	.....	.....	13,655.65	
Cold Lake, John Neil	784.50	8,572.92	2,935.63	157.50	.....	.....	12,450.55	
Coleman, Miners	1,187.00	.....	7,812.50	.....	.....	.....	8,949.50	
Consort, Municipal	699.50	.....	2,059.80	857.75	3,775.76	561.15	7,953.96	
Coronation, General	1,908.50	.....	9,739.10	500.00	.....	.....	12,147.60	
Daysland, Providence	1,122.50	268.00	5,205.65	.....	.....	7,965.20	14,561.35	
Demaris, St. Martin's	250.00	2,158.00	.....	.....	.....	.....	2,408.00	
Didsbury, General	1,267.00	3,300.00	7,649.00	.....	.....	6.05	12,222.05	
Drumheller, Municipal	10,696.00	.....	40,385.55	.....	26,910.00	10,282.35	88,273.90	
Edmonton, Beulah Home	2,157.00	1,000.00	5,528.10	3,643.24	.....	3,001.10	15,329.44	
Edmonton, General	23,447.00	10,500.00	151,388.55	2,982.50	.....	4,657.57	192,975.62	
Edmonton, Misericordia	21,153.50	8,000.00	127,743.94	4,433.65	.....	4,388.04	165,689.13	
Edmonton, Salvation Army, Grace	2,106.50	.....	5,716.08	2,188.89	.....	2,032.00	12,043.47	
Edmonton, Royal Alexandra	48,005.00	*140,694.77	301,202.31	.....	.....	4,986.48	494,888.56	
Edmonton, Isolation	7,979.50	*63,847.38	39,691.53	.....	.....	.....	111,518.41	
Edmonton, University	*76,637.00	*35,036.00	296,588.31	2,500.00	.....	22,270.73	433,062.04	
Edson, St. John's	2,282.50	2,500.00	11,707.22	62.00	.....	.....	16,815.21	
Elk Point, Municipal	3,846.00	.....	11,097.37	29.00	11,186.54	367.50	26,526.41	
Empress, Cottage	1,992.00	.....	15,479.96	.....	.....	267.25	17,739.21	
Fairview, W.I.	901.50	980.00	3,422.50	.....	.....	.....	5,304.00	
Fort Vermilion, St. Theresa	889.00	.....	1,285.75	.....	.....	.....	2,174.75	
Galahad, St. Joseph's	1,197.50	.....	6,152.85	3,623.54	.....	.....	10,973.89	
Gleichen, General	51.00	.....	273.95	.....	.....	.....	324.95	
Grande Prairie, Municipal	6,220.00	.....	27,412.25	599.58	20,719.22	515.07	55,466.12	

EARNINGS OF ALBERTA HOSPITALS, 1930—Continued

Name of Hospital	Grants		Patients' Fees	Donations	Tax Re- quisitions	Sundry Earnings	Total Earnings
	Alberta Govt.	Municipal and others					
Grouard, St. Joseph's	\$ 1,318.50	\$ 4,057.50	1,162.50	.....	\$ 31,031.02	.....	6,538.50
Hanna, Municipal	5,298.50	.....	17,556.00	.....	.....	1,810.70	55,696.22
Hanna, Craigmyle Sub-hospital	757.00	.....	1,839.00	.....	.....	123.96	2,719.96
Hardisty, St. Anne's	1,710.00	.....	8,500.00	450.00	.....	.....	10,660.00
High Prairie, Community	389.00	.....	1,608.00	514.77	.....	.....	2,511.77
High River, Municipal	4,066.50	.....	11,350.00	.....	20,997.12	3,240.41	39,654.03
Innisfail, Municipal	3,646.00	393.15	9,514.05	.....	14,016.82	1,058.48	28,628.50
Islay, Municipal	1,711.00	.....	3,383.00	.....	11,555.00	42.00	16,691.00
Jasper, Seton	1,004.50	3,445.87	9,455.56	2,217.57	.....	.....	16,123.50
Lacombe, General	1,734.00	.....	10,905.95	.....	.....	134.60	12,774.55
Lamont, Public	9,613.50	5,750.00	56,778.95	291.61	.....	2,634.45	75,068.51
Lethbridge, Galt	11,687.50	.....	63,190.05	2,471.87	.....	378.00	77,726.92
Lethbridge, Isolation	509.00	3,406.03	2,139.10	.....	.....	.....	6,054.13
Lethbridge, St. Michael's	4,218.00	.....	42,675.97	.....	*	2,500.00	49,393.97
Lloydminster, Municipal	3,814.00	3,312.00	32,907.00	3.55	.....	.....	40,036.55
Macleod, General	1,767.50	.....	*22,671.91	.....	9,887.00	.....	24,439.41
Mannville, Municipal	1,427.00	.....	3,302.15	.....	.....	.....	14,616.15
Medicine Hat, General	14,659.50	6,000.00	77,131.64	4,289.80	.....	.....	102,140.94
Mundare, General	1,167.50	.....	5,253.09	6,187.03	.....	82.00	12,689.62
McLennan, Sacred Heart	1,852.00	.....	10,118.37	1,345.00	.....	.....	13,315.37
Nanton, General	511.50	.....	3,896.00	.....	.....	.....	4,407.50
Nordeg, General	474.50	.....	2,599.50	.....	.....	4,931.81	8,005.81
Olds, General	1,212.00	2,850.00	7,242.40	.....	.....	148.37	11,452.77
Onoway, Municipal	771.00	.....	1,761.35	.....	4,540.00	.....	7,072.35
Peace River, Municipal	2,308.50	.....	9,623.75	.....	9,265.14	1,569.50	22,766.89
Pincher Creek, St. Vincent's	1,228.00	400.00	8,002.50	200.00	.....	1,166.45	10,996.95
Provost, Municipal	2,744.50	.....	6,094.00	.....	15,178.52	1,602.25	25,619.27
Radway, St. Joseph's	1,306.00	.....	4,616.99	726.62	.....	.....	6,649.61
Red Deer, Municipal	3,591.50	.....	21,741.90	.....	1,379.05	2,018.18	28,730.63
Rimbey, St. Paul's	644.00	.....	3,286.75	.....	.....	.....	3,930.75
St. Paul, St. Theresa	2,620.00	.....	15,038.79	.....	.....	.....	17,658.79
Smoky Lake, George McDougall	1,755.00	.....	5,032.93	7,750.00	.....	.....	14,537.93
Stettler, Municipal	3,502.50	.....	10,553.15	.....	17,035.21	120.00	31,210.86
Taber, General	282.50	.....	1,251.50	.....	.....	.....	1,534.00
Trochu, St. Mary's	1,585.00	.....	6,074.00	4,389.63	.....	.....	12,048.63
Vegreville, General	4,190.50	.....	23,356.00	295.00	.....	.....	27,841.50
Vegreville, R. M. Boswell	1,743.00	.....	3,636.18	3,967.50	.....	527.80	9,874.48
Vermilion, Municipal	3,551.00	.....	5,142.20	.....	14,399.00	637.95	23,730.15
Viking, Municipal	2,241.00	.....	5,565.20	.....	12,700.00	.....	366.55
Vilna, Our Lady's	1,098.50	200.00	4,515.95	203.25	.....	848.55	6,866.25
Vulcan, Municipal	2,141.50	.....	7,254.25	.....	11,188.96	886.41	21,421.12

Wainwright, Municipal	3,013.00	.....	5,552.25	.....	8,986.75	1,180.23	18,732.23
Wayne, General	1,586.50	8,140.98	2,062.00	.....	.....	.....	11,789.48
Westlock, Immaculata	2,070.50	.....	12,642.00	304.70	.....	2,411.00	17,428.20
Wetaskiwin, General	2,763.00	800.00	17,807.00	.....	.....	431.51	21,801.51
	\$439,950.50	\$441,841.66	\$2,151,320.29	\$74,581.20	\$283,846.32	\$111,208.96	\$3,502,748.93

*MUNICIPAL GRANTS:

Calgary, General, is amount charged to Mill Rate.
Calgary, Isolation, is amount charged to Mill Rate.

Edmonton, Royal Alexandra:

City funds to make up deficit..... \$59,799.03
Contribution to Sinking Fund..... 24,016.49
Interest paid on Debentures 56,879.25
\$140,694.77

Edmonton, Isolation:

City funds to make up deficit..... \$43,623.45
Contribution to Sinking Fund..... 6,004.12
Interest paid on Debentures 14,219.81
63,847.38

Edmonton, University:

City of Edmonton \$10,036.00
University of Alberta 25,000.00
Lloydminster, Municipal—Tax Requisition Alberta Board 35,036.00
Macleod, General, includes revenue from Incurable Wards. 17,000.00

*ALBERTA GOVERNMENT GRANT:

Edmonton, University:

General Grant \$56,667.00
Special Grant 20,000.00
\$76,667.00

COSTS OF ALBERTA HOSPITALS, 1930

Name of Hospital	Per Patient per day		Percentage of cost			Earnings, including grants and contri- butions from Municipalities per patient per day
	Exclu- sive of Capital	Capital	Adminis- tration	Operat- ing	Mainten- ance	
Athabasca Municipal	\$ 2.54	.....	10.3	85.8	3.9	\$3.20
Barrhead, St. Elizabeth	1.88	.....	2.0	90.7	7.3	3.14
Bassano, Municipal	3.76	.....	8.0	83.0	9.0	5.29
Bentley, Community	3.85	.....	2.0	94.3	3.7	3.54
Berwyn, W.I.	2.72	.....	3.5	91.6	4.9	2.15
Bonnyville, Katharine H. Prettie....	3.81	.....	7.7	75.5	16.8	3.68
Bonnyville, St. Louis	2.37	.79	2.9	81.8	15.3	4.29
Calgary, General	3.89	.19	9.2	79.5	11.3	4.08
Calgary, Isolation	4.70	.55	16.9	62.2	20.9	5.31
Calgary, S.A. Grace	1.75	.48	6.3	86.8	6.9	2.03
Calgary, Holy Cross	4.12	.35	3.8	69.0	27.2	4.56
Calgary, Junior Red Cross	1.57	.09	2.3	95.4	2.3	1.64
Camrose, St. Mary's	3.48	1.56	15.5	77.3	7.2	4.24
Cardston, Municipal	3.93	.....	6.7	89.8	3.5	4.98
Castor, Our Lady of Rosary	2.67	.....	3.7	82.9	13.4	4.78
Cereal, General	2.32	.....	.8	87.1	12.1	3.35
Claresholm, General	3.42	.....	1.7	98.3	.....	3.66
Cold Lake, John Neil	6.15	.....	3.5	85.4	11.1	7.93
Coleman, Miners' Union	4.71	.....	6.6	80.9	12.5	3.94
Consort, Municipal	3.54	.....	8.3	77.1	14.6	5.69
Coronation, General	2.88	.....	5.4	93.2	1.4	3.18
Desmarais, St. Martin's	2.81	.....	.3	96.1	3.6	1.95
Didsbury, General	4.94	.....	5.5	85.8	8.7	4.82
Drumheller, Municipal	3.30	.63	7.9	83.5	8.6	4.13
Edmonton, Beulah Home	3.55	.....	10.2	71.5	18.3	3.67
Edmonton, General	3.55	.25	5.2	84.2	10.6	4.12
Edmonton, Misericordia	3.68	.31	5.1	73.1	21.8	3.92
Edmonton, S. A. Grace	2.90	.....	7.1	81.6	11.3	2.86
Edmonton, Royal Alexandra	3.41	.84	10.8	77.6	11.6	5.15
Edmonton, Isolation	4.27	1.28	15.9	74.5	9.6	6.98
Edmonton, University	3.81	.38	6.7	87.1	6.2	4.89
Edson, St. John's	2.55	.66	5.4	70.7	23.9	3.68
Elk Point, Municipal	2.46	.33	5.5	90.1	4.4	3.45
Empress, Cottage	3.21	.....	11.2	79.3	9.5	4.45
Fairview, W.I.	2.90	.....	1.2	80.3	18.5	2.94
Fort Vermilion, St. Theresa	2.11	.....	1.4	98.6	.....	1.22
Galahad, St. Joseph's	3.23	1.38	4.0	76.2	19.8	4.58
Grande Prairie, Municipal	3.11	.67	12.7	81.6	5.7	4.46
Grouard, St. Joseph's	3.08	.....	6.3	77.6	16.1	2.48
Hanna, Municipal	3.80	.85	9.8	86.1	4.1	4.82
Hanna, Craigmyle Sub-hospital	4.89	.....	7.3	90.4	2.3	.....
Hardisty, St. Anne's	1.79	1.14	2.0	93.9	4.1	3.12
High Prairie, Community	3.13	.....	.6	92.7	6.7	3.23
High River, Municipal	3.51	.62	7.3	90.9	1.8	4.75
Innisfail, Municipal	3.65	1.02	12.1	85.9	2.0	3.93
Islay, Municipal	3.89	.52	9.9	87.1	3.0	4.88
Jasper Seton	6.87	.....	4.7	60.6	34.7	8.03
Lacombe, General	3.46	.....	5.4	86.0	8.6	3.68
Lamont, Public	3.41	.....	8.7	80.0	11.3	3.90
Lethbridge, Galt	2.83	.....	9.5	85.5	5.0	3.33
Lethbridge, Isolation	3.95	.89	3.2	74.4	22.4	5.95
Lethbridge, St. Michael's	3.82	1.28	10.2	79.7	10.1	5.86
Lloydminster, Municipal	2.74	.....	9.6	74.4	16.0	2.70
Mannville, Municipal	4.09	1.04	7.6	91.7	.7	5.12
Medicine Hat, General	2.44	.....	10.0	81.6	8.4	3.48
Mundare, General	2.77	.....	5.5	91.1	3.4	5.39
McLennan, Sacred Heart	4.67	1.35	2.0	72.6	25.4	3.59
Nanton, General	5.32	.....	2.1	90.3	7.6	4.31
Nordeg, General	6.65	.....	.7	94.5	4.8	8.44
Olds, General	3.82	.....	7.4	83.2	9.4	4.72
Onoway, Municipal	5.63	.21	8.8	84.2	7.0	4.59
Peace River, Municipal	2.50	.....	14.5	82.4	3.1	4.93
Pincher Creek, St. Vincent's	2.13	.....	10.8	61.3	27.9	4.48
Provost, Municipal	3.76	.65	8.4	86.7	4.9	4.67
Radway, St. Joseph's	1.79	.55	6.3	68.3	25.4	2.55
Red Deer, Municipal	3.02	.44	10.1	82.7	7.2	4.00
Rimby, St. Paul's	4.37	.....	2.3	95.9	1.8	3.05
St. Paul, St. Theresa	4.14	.56	4.3	54.7	41.0	3.37
Smoky Lake, George McDougall	1.82	1.47	2.0	77.5	20.5	4.14
Stettler, Municipal	3.45	.58	18.2	74.1	7.7	4.46
Trochu, St. Mary's	3.17	.....	5.7	79.0	15.3	3.80
Vegreville, General	2.41	.....	3.4	89.1	7.5	3.31
Vegreville, R. M. Boswell	3.20	.....	1.2	93.4	5.4	2.83
Vermilion, Municipal	2.58	.60	9.1	87.7	3.2	3.34
Viking, Municipal	3.31	.60	14.3	79.9	5.8	4.66
Vilna, Our Lady's	2.33	.10	5.9	79.6	14.5	3.13
Vulcan, Municipal	5.70	1.09	13.9	77.6	8.5	5.00

COSTS OF ALBERTA HOSPITALS, 1930—Continued

Name of Hospital	Per Patient per day		Percentage of cost			Earnings, including grants and contri- butions from Municipalities per patient per day
	Exclu- sive of Capital	Capital	Adminis- tration	Operat- ing	Mainten- ance	
Wainwright, Municipal	\$ 2.34	\$.59	9.9	86.4	3.7	\$ 3.11
Wayne, General	2.94	.09	6.3	84.2	9.5	3.72
Westlock, Immaculata	2.93	.74	2.9	72.7	24.4	4.21
Wetaskiwin, General	3.19	.....	3.1	91.7	5.2	3.95
	\$ 3.51	.....	7.9	80.4	11.7	\$ 4.33

Charity and Relief

W. B. MILNE, C.A., *Supervisor.*

During the year 1930 this Department gave the required relief in 1,037 cases.

Relief was accounted for in the following manner:—

Temporary relief	470
Permanent relief	121
Transportation	55
Deportation	6
Medical accounts paid	230
Hospital accounts paid	316
Clothing	87
Temporary maintenance:	
Salvation Army Hostel	266
Macleod Hospital	21
Calgary Salvation Army	6
Gleichen Eventide Home	59
Bonnie Doon Home, Edmonton	45
House of Providence, Edmonton	16
Lacombe Home, Midnapore	12
Providence Hospital, Daysland	4

The Alberta Provincial Police reported on 1,787 investigations made for and on behalf of the Department.

There were 127 cases referred to municipal authorities for their attention.

There were approximately 1,000 interviews in the office during the year.

Division of Social Hygiene

(HAROLD ORR, O.B.E., M.B., D.P.H., *Director*)

We have continued during the year the policy of education which, during the past ten years, has been an important part of the work of this Branch. There are probably very few people in this Province who have not been reached in this way.

In our last annual report we dealt rather fully with our methods of treatment, and therefore this year we merely submit the following figures to indicate the work done in the various clinics:

EDMONTON CLINIC, 9912 103rd Avenue.

Number of Patients	418
Sexes of Patients: Male	326
Female	92

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	85	241	.....	326
Female	50	42	.....	92
Totals	135	283	.....	418

Number and results of Wassermann tests: 1,743 tests, of which 410 were positive.

CALGARY CLINIC, City Hall Annex, New Police Building.

Number of Patients	579
Sexes of Patients: Male	465
Female	114

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	100	344	21	465
Female	46	68	.....	114
Totals	146	412	21	579

MEDICINE HAT CLINIC, General Hospital.

Number of Patients	41
Sexes of Patients: Male	31
Female	10

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	9	21	1	31
Female	5	5	.....	10
Totals	14	26	1	41

Number and results of Wassermann tests: 101 tests, of which 52 were positive.

LETHBRIDGE CLINIC, Galt Hospital.

Number of Patients	29
Sexes of Patients: Male	28
Female	1

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	8	19	1	28
Female	1	.....	.....	1
Totals	9	19	1	29

Number and results of Wassermann tests: 39 tests, of which 6 were positive.

DEPARTMENT OF PUBLIC HEALTH

LETHBRIDGE GAOL, Lethbridge.

Number of Patients 61
 Sex of Patients: Male 61

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	43	18	.....	61

Number and results of Wassermann tests: 809 tests, of which 58 were positive.

FORT SASKATCHEWAN GAOL, Fort Saskatchewan.

Number of Patients 157
 Sexes of Patients: Male 70
 Female 87

CLASSIFICATION OF PATIENTS' DISEASES

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	57	13	.....	70
Female	40	47	.....	87
Totals	97	60	.....	157

Number and results of Wassermann tests: 1,257 tests, of which 196 were positive.

CASES REPORTED BY DOCTORS IN THE PROVINCE.

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	50	138	.....	188
Female	16	20	.....	36
Totals	66	158	.....	224

RECAPITULATION.

	Syphilis.	Gonorrhoea.	Chancroid.	Totals.
Male	352	794	23	1169
Female	158	182	.....	340
Totals	510	976	23	1509

Sanitary Engineering Division

(R. B. OWENS, B.A., B.E., *Provincial Sanitary Engineer*)

The following is a detailed list of works for which Provincial Board of Health certificates have been issued, together with the estimated cost of each:

WATERWORKS.

Edmonton—Certificate No. 309/30, addition to filtration Plant. Estimated Cost	\$ 90,750.00
Edmonton—Certificate No. 317/30, extensions to waterworks system. Estimated Cost	95,408.00
Calgary—Certificate No. 319/30, waterworks system. Estimated Cost	3,770,000.00
Stettler—Certificate No. 321/30, improvements to waterworks system. Estimated Cost	20,260.00
Brooks—Certificate No. 322/30, extensions to waterworks system. Estimated cost	5,000.00
Vegreville—Certificate No. 327/30, extensions to waterworks system. Estimated Cost	3,765.40
Vegreville—Certificate No. 329/30, steel water tower. Estimated Cost.....	15,000.00
Elnora—Certificate No. 331/30, well. Estimated Cost	854.50
Edson—Certificate No. 339/30, waterworks system. Estimated Cost.....	64,500.00
Calgary—Provisional Certificate No. 334/30, swimming pools. Estimated Cost	90,000.00

SEWERAGE

Edmonton—Certificate No. 310/30, storm relief sewers. Estimated Cost....\$	160,000.00
Calgary—Certificate No. 312/30, sewer extensions. Estimated Cost.....	20,953.00
Edmonton—Certificate No. 313/30, sewage disposal plant and minor extensions. Estimated Cost	108,500.00
Edmonton—Certificate No. 314/30, sewer construction. Estimated Cost....	85,000.00
Edmonton—Certificate No. 315/30, sewer construction. Estimated Cost.....	50,000.00
Edmonton—Certificate No. 316/30, sewer construction. Estimated Cost....	31,000.00
Magrath—Certificate No. 318/30, sewers. Estimated Cost.....	39,900.00
Lethbridge—Certificate No. 320/30, sanitary sewer. Estimated Cost.....	2,300.00
Turner Valley—Certificate No. 324/30, sewerage extensions and disposal works. Estimated Cost	9,140.00
Calgary—Certificate No. 326/30, sewage disposal system. Estimated Cost....	75,000.00
Vegreville—Certificate No. 328/30, sewer extensions. Estimated Cost.....	1,634.60
Calgary—Certificate No. 330/30, sewers. Estimated Cost.....	19,040.00
Lethbridge—Certificate No. 333/30, sanitary sewers. Estimated Cost.....	23,291.00
Edmonton—Certificate No. 335/30, storm relief sewer. Estimated Cost.....	1,800.00
Calgary—Certificate No. 336/30, sewer extensions. Estimated Cost.....	51,593.00
Edmonton—Certificate No. 337/30, sewers. Estimated Cost	86,800.00
Edmonton—Certificate No. 338/30, sewage disposal plant. Estimated Cost..	50,000.00
Calgary—Certificate No. 340/30, sewer extensions. Estimated Cost.....	5,314.00
Edmonton—Certificate No. 341/30, sewers. Estimated Cost	30,000.00
Edmonton—Certificate No. 342/30, sewer extensions. Estimated Cost.....	29,125.00

HOSPITALS.

Castor—Certificate No. 12/30, addition to Our Lady of the Rosary Hospital.
 Jasper—Certificate No. 14/30, St. Martha's Hospital.

Plans and specifications submitted to the Provincial Board of Health for waterworks, sewerage and sewage disposal plants as required under Sections 10, 11, 12, 13, 14 and 15 of The Public Health Act, were duly examined, and where approval was given certificates were issued.

Plans and specifications other than those aforesaid, but required by the Provincial Board of Health, were also examined and the necessary action taken thereon.

Plans, specifications and proposals in connection with the sanitary engineering works submitted to the Public Utilities Commission were also examined and advice given.

Plans and specifications in connection with sanitary engineering works connected with hospitals under The Hospitals Act and Municipal Hospitals Act, were examined and advice given thereon.

Sanitary engineering works in connection with the institutions under the administration of the Public Works Department were visited and advice given where necessary.

During the year reports on the analyses of water and ice were examined and, where necessary, action in the matter of prohibiting the use of the supply was taken, or an investigation made for the purpose of advising as to a remedy.

Under the sanitation section of the Sanitary Engineering Branch of the Department, the following work was carried out by our three inspectors:

One hundred and eighty-four health districts were visited and inspected. Of this number 125 were inspected a second time and 27 inspected three times.

One hundred and sixteen lumber, tie, sawmill and mining camps were visited and inspected. Of this number 72 were visited and inspected a second time.

Two hundred and fourteen "Notices to Abate Nuisances" were issued and served by the inspectors, and 92 were ordered issued by representatives of the local health authorities.

Twenty-seven prosecutions were carried out and convictions were obtained in each case; fines varying from \$5 to \$20 being imposed in addition to costs.

Fifty-seven samples of water were collected for examination and analysis.

Thirty-eight waterworks and sewage disposal systems were inspected.

Four hundred and seventy-six pounds of food stuffs were seized and destroyed as unfit for food for human consumption.

Sixty-four complaints and requests for services of inspectors were received and satisfactory adjustments were made in each case. Requests for inspectors were to assist in locating suitable locations for nuisance grounds, hospital sites, stockyards, etc., and for further inspection of the district.

The services of the inspectors have been used in investigations of outbreaks of infectious and contagious disease.

In addition to the above, one inspector devotes part of his time to dealing with the office routine with respect to the system of supervision of purchasing adopted by the Department at the end of the year 1927.

Typical plans dealing with sewage disposal, heating and ventilation have been prepared, printed and distributed. These are available to those who request information on these subjects.

The health and occupational Therapy exhibit was again held during the Edmonton exhibition. The baby welfare clinic at the exhibition has been discontinued.

The Public Health Regulations are being revised.

Dental Hygiene Division

(A. E. HEACOCK, L.D.S., D.D.S., *Dentist*)

During the year the various institutions under the Department received dental service.

The Central Alberta Sanatorium was visited monthly, except for a short time in the summer. During this period Dr. McCaffrey gave part time service.

All patients in the Provincial Mental Institute, Oliver, and in the Provincial Training School, Red Deer, were examined and necessary treatments carried out.

The Provincial Travelling Clinic was in operation from May 26th to October 10th. Dr. Gilchrist was again on the staff, until it was necessary for him to return for the opening of the University classes. As there were only two centres to visit after this time, Valhalla and Beaver Lodge, Dr. Goodhand, Beaver Lodge, assisted at these points.

A summary of the work carried out by this branch appears in the reports of the various institutions, and in the report of the Nursing Branch.

Mental Health Division

(C. A. BARAGAR, M.D., *Commissioner of Mental Institutions
and Director of Mental Health*)

Reports from the various institutions under my direction have been already submitted. One or two special points in each of these reports are, perhaps, worthy of emphasis.

It will be noted that on the last day of the year 1,600 patients—1,012 male and 588 female—were being cared for in the Provincial mental institutions, a total increase in residence during the year of 94, and that 426 were admitted during the year. The ratio of voluntary patients at Ponoka increased from 5% to 9%, indicating an increase in public confidence in that institution.

The two most important features of the year's history are the very successful effort made to provide more adequate accommodation for patients and the institution of a training school at Ponoka for nurses and attendants.

At Ponoka there were provided a men's reception ward for 90 patients and a ward for the more effective care of refractory or disturbed male patients of the chronic or continued treatment service. The latter building presents many unusual features worthy of commendation. The first named building released for women patients two wards which permit of an improved women's reception service. In addition a dining room for female patients and one for the staff have been opened.

At Oliver two new buildings have been added, one a building with accommodation for 80 patients and the other an exceptionally fine dining-room kitchen unit.

At Red Deer a cottage for 25 boys, but with provisions also for school rooms and some staff accommodation was erected. A new power-house and laundry relieved considerably the congestion in the main building.

In passing, one cannot but refer to the high proportion of low grade patients—idiots (40.5%) and imbeciles (39.5%)—as compared with the higher grades of defectives (20%) for whom hopeful work is possible so far as social reestablishment is concerned. The low grades may be the socially urgent cases, but they are not the most important cases socially. The number of applicants (193) awaiting admission as well as the number of reported suspects (350) are indeed a serious challenge, a challenge that can only be met by increased accommodation and increased facilities.

MENTAL HYGIENE CLINICS.

Mental hygiene clinics are held weekly on Tuesday in Edmonton, fortnightly on Thursdays in Calgary, and every fourth week on Fridays in Lethbridge. This work was carried on through the co-operative efforts of Dr. C. P. Fitzpatrick, Medical Superintendent

of the Provincial Mental Institute at Oliver, Mr. Stuart Jaffary, social worker attached to the Provincial Mental Hospital, Ponoka, and Mr. E. J. Kibblewhite, part time social worker in Edmonton, as well as several other temporary social workers from the University. In this work the clinics have had invaluable advice and active assistance from Dr. J. M. McEachran and Dr. H. E. Smith of the Department of Philosophy of the University.

The work of the clinics has been varied, dealing as they have with problem cases referred by schools, courts, police, physicians, health departments, hospitals, charities, homes, parents and the Department of Neglected Children. A certain proportion of the time of the social workers was absorbed in carrying out field investigations for the hospitals and the training school at Red Deer. The work of the clinics has proved important and valuable, carrying, as it does, expert psychiatric advice and assistance to at least a few of the important centres of the Province.

PSYCHOPATHIC WARD.

The University Hospital is making provision for a psychopathic ward of fourteen beds in the new wing. It is proposed that this shall serve as a centre for the investigation of early and especially recoverable cases of mental illness as well as border line cases. It has also an educational function to perform in connection with the medical school of the University, by means of which through the young men and women graduating each year it will be able to serve the whole Province.

OFFICE OF THE COMMISSIONER.

During the year the Government of Alberta decided to establish the office of the Commissioner of Mental Institutions and Director of Mental Health, and on September 8th saw fit to entrust me with that appointment.

During the remaining four months of the year my time was spent in gaining first hand information respecting the various institutions placed under my direction, the work of the mental hygiene clinics, the eugenics board and of the general aims and policy of the Minister and Deputy Minister under whom I had the privilege of working.

While no great changes, apart from the inauguration of the training school in mental nursing at Ponoka, were instituted, one could not help but be impressed by the very fine groups of buildings devoted to the work of the Department, the high personal qualities of staffs in general and the deep and active interest of the Ministers of the Province in this branch of the public service, a general situation that presents a fine opportunity for steady progress in the matter of future reorganization.

Provincial Mental Hospital, Ponoka

(E. H. COOKE, M.D., *Medical Superintendent*)

On the first day of January, 1930, there were in residence 1,086 patients, 608 males and 478 females. At the close of the year there were 1,103 patients, 600 males and 503 females, a net increase of only 17, but allowance must be made for the 70 patients who were transferred to the Provincial Mental Institute, Oliver, on the 20th of May, as shown in the table summarizing the movements of patients during 1930.

The total admissions, including 4 observation cases, were 389, viz.: 244 males and 145 females, as compared with 362 in 1929—244 males and 118 females.

The voluntary admissions increased from 18 (5%) to 36 (9%), whilst there was a slight decrease in those admitted by two medical certificates.

The total discharges were 248, viz., 144 males and 104 females, as follows:

	Male.	Female.	Total.
Recovered	61	55	116
Improved	59	31	90
Not Improved	4	8	12
Not Insane	20	10	30
Totals.....	144	104	248

These discharges include 210 probations (110 males and 100 females), 4 cases for observation and 32 deportations to the following countries:

	Male.	Female.	Total.
Czecho-Slovakia	1	....	1
Denmark	1	....	1
England	4	....	4
Germany	3	1	4
Hungary	4	....	4
Ireland	4	1	5
Yugo-Slavia	1	....	1
Norway	1	....	1
Poland	5	1	6
Roumania	1	....	1
Sweden	1	....	1
Scotland	2	....	2
U.S.A. ....	....	1	1
Totals.....	28	4	32

The total discharge rate was 59% of the admissions as against 58.5% for the preceding year.

The recovery rate, based on the admissions for the year (less those "not insane") is for both sexes 27.9% (males 20.8%, females 40%).

The deaths were 69, viz., 43 males and 26 females.

The death rate, based on the total number under treatment and observation (1,479), is for the males 5.02% and for the females 4.17%, or for both sexes 4.6%.

There was one death from carcinoma of the uterus, 9 from pulmonary tuberculosis, 4 from suicide (2 males and 2 females) and amongst the general paralytics were 5 deaths from various

causes, including one that could be directly attributed to the exhausting effects of the malarial rigors.

Between the 12th of September, 1924, and the 31st of December, 1930, 145 cases of general paralysis (128 males and 17 females) have been treated by malarial inoculation, with the following results:

	Male.	Female.	Total.
Discharged	50	8	58
Deported	4	1	5
Eloped	2	....	2
Died	34	5	39
Still in Hospital	38	3	41
Totals.....	128	17	145

Among the admissions there were 14 drug addicts (one with psychosis), 7 alcoholics with psychoses, 22 general paralytics (19 males and 3 females), 5 suffering from the after-effects of encephalitis lethargica (2 with psychoses, 2 showing disorders of conduct and 1 a Parkinsonian syndrome), and 33 mental defectives (25 with psychoses and 8 without).

Table No. 5 shows that 38.8% were born in Canada, 21.1% in the British Isles, 16.4% in the U.S.A. and 19% in Central and Eastern European countries.

Three meetings of the eugenics board were held during the year, and the sterilization of 13 patients (4 males and 9 females) was authorized. To date (December 31, 1930) 25 cases (5 males and 20 females) from this hospital have been sterilized.

Since Mr. Stuart K. Jaffary was appointed part time social worker in June, 1929, a large number of psychometric examinations have been made on patients in this institution, as well as field investigations and follow-up reports.

The outbreak of diphtheria, which began on the female side in 1929, continued into the year, and 9 more clinical cases occurred on the female side, of which 7 were amongst the staff. Twenty-one carriers were found amongst the female patients. Shick tests were performed on the entire hospital population, and those that were found sensitive immunized, and no more cases occurred. The male patients and staff have remained free throughout.

The following were the more important changes in the staff: Mr. F. A. Rasmussen, who is a trained hydrotherapist, was appointed on January 30th and with his help the hydro-therapy department was reorganized and extended. Dr. David Christie, who was appointed medical officer on December 11th the previous year, resigned on February 9th. Dr. Randall R. MacLean resigned on February 16th, having secured the position of second assistant executive officer at the Psychopathic Hospital, Boston, Mass. The two vacancies so created were filled by Drs. A. W. Martins and W. L. Valens on March 17th and May 26th respectively. Miss Margaret Stewart, superintendent of nurses, resigned on June 30th, and Miss C. S. Lynch, superintendent of nurses at the Brandon Mental Hospital, was appointed in her place, her duties to begin early in January, 1931. Miss G. M. Watts, a graduate in occupational therapy of the University of Toronto, was engaged as additional occupational therapist on November 8th, and with her help the benefits of occupational therapy have been extended in the wards. It is of interest to note that Mrs. Bennett, who for years rendered faithful service on the domestic staff, resigned on Novem-

ber 17th, and was the first employe at this hospital to be superannuated.

During September a training school for our nurses and attendants was inaugurated and courses of instruction given in nursing ethics, anatomy and physiology, practical nursing and nursing therapeutics, materia medica and therapeutics, sanitation and hygiene, psychology and psychiatry to those who qualified for the diploma course. For the remainder a short course consisting of nursing ethics, elementary anatomy and physiology, practical nursing, nursing therapeutics and elementary psychiatry was arranged. Towards the end of the year a number of graduate nurses were taken on the staff. To these a course of lectures in psychiatry will be given early in the ensuing year by Dr. C. A. Baragar, recently appointed Commissioner of Mental Institutions and Director of Mental Health.

LABORATORY REPORT FOR 1930.

Routine urinalyses	945
Cerebro-spinal fluid (cells and globulins)	237
Blood counts (total and differential)	82
Sputum examined (T.B. and other organisms)	54
Smears for gonococcus	4
Blood films from patients inoculated with malaria	19
Autopsies	22
Guinea pigs inoculated with milk from farm	124
Post-mortems on guinea pigs inoculated with farm milk.....	81
Calves vaccinated or re-vaccinated with B.C.G.	80

DENTAL REPORT FOR 1930.

Extractions	1619
Fillings	144
Treatments for pyorrhoea	204
Scaling and cleaning	261
Prophylaxis	162
General anaesthetics	19
Dentures	61
Dentures re-lined	5
Dentures repaired	21
Relieving plate pressure	50
Patients X-rayed	41
Number of office treatments	1240

GARDEN.

Under the direction of Mr. Alex. Paton, provincial landscape gardener, considerable improvement has been made in the grounds. Old lawns, which had become infested with weeds, were ploughed up, the drive in front of the hospital widened and extended, plans made for rockeries and the proposed recreation park between the buildings and railway spur ploughed, graded and part of it seeded to grass.

The following were the more important constructions: The new reception building for male patients (90 beds) and the building (known as "Male 12") for the continued treatment of the chronically disturbed male patients (60 beds) were completed and occupied in July and November respectively. Both buildings are well equipped for carrying out the more useful forms of hydro-therapeutic treatment. These buildings have made possible the re-grouping of patients and the removal of the chronically disturbed, dangerous and impulsive to "Male 12", where they are dealt with in small and separate units, and has greatly added to the comfort and quietude of the other wards.

The new east wing of the nurses' home was also completed, thereby doubling the accommodation as well as providing a sick bay of five beds and a large and pleasant recreation hall for the staff.

TABLE SHOWING MOVEMENT OF PATIENTS DURING 1930.

	Male.	Female.	Total.
In residence January 1, 1930	608	478	1086
INCOMING.			
Admissions:			
By Voluntary Application	25	11	
By 2 Medical Certificates	19	17	
By Warrant	192	115	
By Order of Minister of Health	2	2	
Admitted for Observation	4	....	
Admitted as Prisoners	2	....	
	21	1	389
Eloped and Returned	14	10	
Returned from Probation	8	8	
Returned from Leave of Absence	1	....	
Returned from Prov. Training School.....	2	5	
Returned from General Hospitals			70
			1545
OUTGOING.			
Probations	110	100	
Deportations	28	4	
Granted Leave of Absence	8	9	
Transferred to Oliver	70	....	
Transferred to General Hospitals	1	4	
Observation Cases Disposed of	4	....	
Eloped	32	1	
Deaths	43	26	
			442
Total in residence Dec. 31, 1930.....	600	503	1103
Total in residence Dec. 31, 1929.....	608	478	1086
Increase in Residents	-8	25	17

TABLE No. 1
SHOWING THE NUMBER OF ADMISSIONS, DISCHARGES AND DEATHS
DURING 1930.

	Admissions.			Discharges.			Deaths.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
January	19	8	27	5	2	7	2	1	3
February	22	17	29	7	8	15	3	4	7
March	26	14	40	14	6	20	3	4	7
April	27	15	42	19	10	29	4	2	6
May	23	8	31	18	7	25	8	3	11
June	13	10	23	6	8	14	7	2	9
July	17	18	35	7	7	14	1	3	4
August	18	13	31	11	7	18	2	2	4
September	16	6	22	16	19	35	2	....	2
October	18	16	34	14	11	25	7	1	8
November	23	8	31	9	15	24	2	3	5
December	22	12	34	18	4	22	2	1	3
Totals	244	145	389	144	104	248	43	26	69

TABLE No. 2
SHOWING THE CIVIL STATE OF PATIENTS ADMITTED DURING 1930.

Civil State.	Male.	Female.	Total.
Single	139	45	184
Married	88	85	173
Widowed	17	11	28
Divorced .....	....	4	4
Total.....	244	145	389

TABLE No. 3
SHOWING THE RELIGIOUS DENOMINATION OF THOSE ADMITTED DURING 1930.

Religious Denomination.	Male.	Female.	Total.
Anglican	36	19	55
Baptist	14	6	20
Christian Church	1	....	1
Christian Scientist .....	....	3	3
Confucian	1	....	1
Greek Church	17	13	30
I.B.S.A. ....	....	2	2
Jewish	1	....	1
Latter Day Saint .....	....	1	1
Lutheran	30	17	47
Mormon	2	2	4
Mennonite	1	1	2
Other Protestants	22	6	28
Pagan	1	....	1
Presbyterian	33	18	51
Roman Catholic	63	37	100
Salvation Army	1	....	1
Seventh Day Adventist .....	....	2	2
United Church	21	18	39
Total.....	244	145	389

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 4

SHOWING THE DEGREE OF EDUCATION OF THOSE ADMITTED DURING 1930.

Degree of Education.	Male.	Female.	Total.
Superior	3	...	3
Common School	231	137	368
None	10	8	18
Total.....	244	145	389

TABLE No. 5

SHOWING THE NATIVITY OF THOSE ADMITTED DURING 1930.

Nativity.	Male.	Female.	Total.	Nativity.	Male.	Female.	Total.
Austria	11	2	13	Lithuania	1	...	1
Belgium	...	2	2	Newfoundland	1	1	2
Canada	98	53	151	New Zealand	...	1	1
Channel Islands	1	...	1	Norway	5	1	6
Czecho-Slovakia	1	...	1	Poland	9	12	21
Denmark	1	1	2	Roumania	3	...	3
England	22	20	42	Russia	3	2	5
Finland	1	1	2	Scotland	18	9	27
France	1	2	3	Sweden	8	2	10
Germany	5	1	6	Switzerland	1	...	1
Hungary	3	...	3	Ukraine	1	3	4
Ireland	4	4	8	U.S.A.	37	27	64
Italy	3	...	3	Wales	3	1	4
Jugo-Slavia	3	...	3	Total.....	244	145	389

TABLE No. 6

PLACE OF RESIDENCE AT TIME OF COMMITMENT, 1930.

Place.	Male.	Female.	Total.	Place.	Male.	Female.	Total.
Alhambra	...	1	1	Gainford	...	1	1
Andrew	...	1	1	Galahad	...	1	1
Ardmore	1	...	1	Girouxville	1	...	1
Athabasca	1	2	3	Gleichen	4	...	4
Balm	1	...	1	Golden Spike	1	...	1
Barons	1	...	1	Golden Prairie	1	...	1
Barrhead	...	1	1	Grande Prairie	4	...	4
Bashaw	...	1	1	Granum	1	...	1
Beaver Lake	...	1	1	Greencourt	...	1	1
Benton	1	...	1	Gwynne	1	...	1
Blairmore	1	...	1	Handhills	1	...	1
Blue Ridge	1	...	1	Hayter	1	...	1
Bon Accord	...	1	1	Hanna	...	1	1
Boyer River	...	1	1	Hamlin	...	1	1
Boyne Lake	...	1	1	High Prairie	1	1	2
Brosseau	...	1	1	High River	1	...	1
Buford	1	...	1	Hilliard	...	1	1
Busby	2	...	2	Hines Creek	...	1	1
Calgary	42	20	62	Hughenden	1	1	2
Calmar	...	1	1	Hythe	1	...	1
Camrose	1	...	1	Innisfail	3	...	3
Canmore	...	1	1	Islay	...	1	1
Carbon	...	1	1	Jasper	2	...	2
Carstairs	1	1	2	Keg River	1	...	1
Cardston	...	1	1	Kelsey	1	...	1
Casavant	1	...	1	Kinuso	1	...	1
Cayley	...	1	1	Kirriemuir	1	...	1
Craigmyle	1	...	1	Kitscoty	1	...	1
Champion	1	...	1	Lacombe	1	...	1
Chauvin	1	...	1	Lamont	...	1	1
Chipman	1	...	1	Lavoy	...	1	1
Chinook	1	...	1	Leavitt	1	...	1
Coleman	1	1	2	Leduc	1	...	1
Colinton	1	1	2	Leeshore	1	...	1
Coronada	...	1	1	Leslieville	...	2	2
Coutts	...	1	1	Lethbridge	10	2	12
Conklin	...	1	1	Lindale	1	...	1
Clareshelm	1	1	2	Lomond	1	1	2
Dapp	1	...	1	Lovett	1	...	1
Daysland	...	1	1	Macleod	...	2	2
De Winton	1	...	1	Magrath	...	1	1
Didsbury	2	...	2	Marlboro	1	...	1
Dimsdale	...	2	2	Masinasin	1	...	1
Donalda	1	...	1	Marwayne	...	2	2
Drumheller	1	...	1	Meanook	1	...	1
Duhamel	...	1	1	Medicine Hat	3	2	5
Delph	...	1	1	Milk River	2	1	3
Edmonton	44	35	79	Millet	1	...	1
Edson	2	1	3	Morinville	...	2	2
Elnora	1	...	1	Mountain Park	1	...	1
Enchant	...	1	1	Mundare	...	1	1
Enilda	1	...	1	Munson	1	...	1
Etzikom	1	...	1	Nampa	1	...	1
Fabyan	1	1	2	Nevis	...	1	1
Falher	2	1	3	New Norway	...	1	1
Ferintosh	1	...	1	Normandeau	...	1	1
Forestburg	1	...	1	Norton	1	...	1
Fort Macpherson	1	...	1	Ohaton	1	...	1
Fort Saskatchewan	1	1	2	Oliver	1	...	1
Fort Vermilion	1	...	1	Pathfinder	1	...	1
Field, B. C.	1	...	1	Peers	1	...	1

Place.	Male.	Female.	Total.	Place.	Male.	Female.	Total.
Pincher Creek	3	....	3	Sunnydale	1	....	1
Plamondon	1	....	1	Taber	1	....	1
Ponoka	1	....	1	Tees	1	....	1
Providence .....	....	1	1	Telfordville	1	....	1
Provost .....	....	1	1	Thorhild	1	....	1
Rahab	1	....	1	Three Hills .....	....	1	1
Raymond	1	1	2	Tofield	3	....	3
Red Deer	3	3	6	Travers .....	....	1	1
Red Willow	1	....	1	Trochu	1	....	1
Rimbey	1	....	1	Turner Valley	3	....	3
Rocky Mtn. House....	....	1	1	Two Hills	2	....	2
Rosedale	1	....	1	Vegreville	1	1	2
Rowley	1	....	1	Vermilion	1	1	2
St. Albert	1	....	1	Veteran .....	....	1	1
St. Edouard	1	....	1	Viking	1	....	1
St. Lina .....	....	1	1	Vilna .....	....	1	1
St. Paul	1	....	1	Vulcan	1	1	2
Shepard .....	....	1	1	Wainwright	1	....	1
Spring Coulee	1	....	1	Warner	2	1	3
Sion	1	....	1	Warspite .....	....	1	1
Standard .....	....	1	1	Waskatenau	1	1	2
Stauffer	2	....	2	Waugh	1	....	1
Stettler	3	1	4	Wembley	1	....	1
Stony Plain	1	....	1	Wetaskiwin	2	....	2
Strathmore .....	....	1	1	Whitcourt	1	....	1
Streamstown .....	....	1	1	Winnifred .....	....	1	1
Strome	1	1	2	Winterburn .....	....	1	1
Stry	1	....	1				
				Total.....	244	145	389

TABLE No. 7

SHOWING THE OCCUPATION OF THOSE ADMITTED DURING 1930.

Occupation.	Male.	Female.	Total.	Occupation.	Male.	Female.	Total.
Attendant	1	....	1	Laundry Worker	1	....	1
Baker	2	....	2	Labourer	90	....	90
Barber	1	1	2	Lumberman	1	....	1
Blacksmith	2	....	2	Miner	6	....	6
Brakeman	1	....	1	Milliner .....	....	2	2
Butcher	1	....	1	Mechanic	1	....	1
Book-keeper	1	1	2	Motor Mechanic	1	....	1
Carpenter	9	....	9	Newsboy	1	....	1
Clerk	7	....	7	Night Watchman .....	....	....	....
Coal Merchant	1	....	1	Nurse .....	....	1	1
Charwoman .....	....	1	1	None	7	2	9
Cook	1	1	2	Painter	5	....	5
Druggist	1	....	1	Physician	1	....	1
Domestic .....	....	11	11	Postmaster	1	....	1
Elevator Operator	1	....	1	Railway Switchman	1	....	1
Engineer (Locomotive)	1	....	1	Real Estate Agent	1	....	1
Engineer (Steam)	4	....	4	Salesman	7	....	7
Engineer's Helper	1	....	1	School girl .....	....	1	1
Farmer	62	1	63	School boy	1	....	1
Fireman	5	....	5	School teacher .....	....	2	2
Fur Finisher .....	....	1	1	Sister of Charity .....	....	1	1
Gardener	2	....	2	Street car Conductor..	2	....	2
Grain Buyer	2	....	2	Stenographer .....	....	1	1
Home	1	10	11	Student .....	....	1	1
Hotel Porter	1	....	1	Tailor	1	....	1
Housekeeper .....	....	6	6	Tool Dresser	1	....	1
Housewife .....	....	94	94	Trapper	1	....	1
Housework .....	....	5	5	Treaty Indian	1	....	1
Insurance Agent	3	....	3	Waitress .....	....	2	2
Janitor	1	....	1				
Livery Agent	1	....	1	Total.....	244	145	389

TABLE No. 8

SHOWING THE AGES OF THOSE ADMITTED DURING 1930

Ages.	Male.	Female.	Total.	Ages.	Male.	Female.	Total.
10 to 15	2	1	3	55 to 60	17	7	24
15 to 20	15	9	24	60 to 65	7	4	11
20 to 25	24	25	49	65 to 70	9	3	12
25 to 30	41	20	61	70 to 75	6	1	7
30 to 35	28	14	42	75 to 80	1	....	1
35 to 40	25	18	43	80 to 85	1	1	2
40 to 45	32	19	51	85 to 90	2	....	2
45 to 50	21	14	35				
50 to 55	14	8	22	Total.....	244	145	389

TABLE No. 9

SHOWING STATISTICS OF HEREDITY IN THOSE ADMITTED DURING 1930.

Heredity.	Male.	Female.	Total.	Heredity.	Male.	Female.	Total.
Paternal Branch	52	17	69	Said not to be			
Maternal Branch	16	25	41	Heredity....	120	67	187
Paternal or Maternal..	24	12	36	History insufficient....	18	12	30
Paternal and Maternal	14	12	26				
				Total	244	145	389

TABLE No. 10

SHOWING THE ALLEGED CAUSES OF THE ATTACK OF INSANITY, 1930.

Alleged Causes.	Male.	Female.	Total.
Accident	2	...	2
Alcohol	23	3	26
Arteriosclerosis	21	4	25
Birth palsy	...	1	1
Carcinoma of uterus	...	1	1
Cerebral abscess	1	...	1
Cerebral embolism	...	1	1
Child-birth	...	3	3
Diabetes	1	...	1
Drug Addiction	7	6	13
Early environment	2	...	2
Encephalitis Lethargica	4	1	5
Epilepsy	13	3	16
Heredity—Insane and Nervous	59	59	118
" Alcoholic	41	9	50
" Epileptic	20	8	28
" Defective	8	7	15
" Suspected	5	2	7
Huntington's Chorea	1	1	2
Hyperthyroidism	...	2	2
Ill-health	1	4	5
Injury to head	4	...	4
Involution	...	2	2
Marital Incompatibility	1	7	8
Menopause	...	5	5
Mental Deficiency	24	22	46
Mental Stress—Sudden	4	8	12
" Prolonged	11	10	21
Mumps	...	2	2
Not known	15	19	34
Operation	2	9	11
Personality—Hysterical	1	2	3
" Paranoid	24	10	34
" Psychopathic	4	...	4
" Schizoid	53	25	78
" Syntonic	18	9	27
Pregnancy	...	2	2
Puerperal Septicaemia	...	1	1
Pyorrhoea	4	1	5
Senility	11	5	16
Syphilis	23	3	26
" Congenital	1	...	1
Tuberculosis—Pulmonary	1	...	1

TABLE No. 11

SHOWING THE STATE OF BODILY HEALTH ON ADMISSION DURING 1930.

Bodily Condition.	Male.	Female.	Total.
In average bodily health	199	97	296
In reduced health	31	40	71
In greatly reduced health	14	8	22
Total	244	145	389

TABLE No. 12

SHOWING THE FORM OF MENTAL DISORDER IN THOSE ADMITTED DURING 1930.

Form of Disorder.	Male.	Female.	Total.
TRAUMATIC PSYCHOSES:			
Deterioration	1	...	1
SENILE PSYCHOSES:			
Simple Deterioration	5	2	7
Presbyophrenic type	1	1	2
Delirious and confused states	1	1	2
Paranoid type	2	1	3
PSYCHOSES WITH CEREBRAL ARTERIOSCLEROSIS	16	2	18
GENERAL PARALYSIS OF THE INSANE:			
Acquired	18	3	21
Congenital	1	...	1
PSYCHOSES WITH HUNTINGTON'S CHOREA	1	1	2
PSYCHOSES WITH OTHER BRAIN OR NERVOUS DISEASES:			
Cerebral Embolism	...	1	1
Encephalitis Lethargica	1	1	2
ALCOHOLIC PSYCHOSES:			
Delirium tremens	2	...	2
Korsakow's psychosis	1	...	1
Acute hallucinosis	3	...	3
Deterioration	...	1	1
PSYCHOSES DUE TO DRUGS	...	1	1
PSYCHOSES WITH OTHER SOMATIC DISEASES:			
Post-infectious psychosis	...	1	1
Exhaustion delirium	1	...	1
Delirium of unknown origin	...	1	1
Cardio-renal	...	1	1
Thyroid	...	4	4
Menopause	...	1	1
Auricular fibrillation	1	...	1

Form of Disorder.	Male.	Female	Total.
MANIC-DEPRESSIVE PSYCHOSES:			
Manic type	14	7	21
Depressive type	14	12	26
INVOLUTIONAL MELANCHOLIA .....	....	1	1
SCHIZOPHRENIA:			
Paranoid type	9	5	14
Catatonic type	42	46	88
Hebephrenic types	13	6	19
Type not specified	3	1	4
PARANOIA AND PARANOIC CONDITIONS	36	13	49
EPILEPTIC PSYCHOSES:			
Deterioration	9	1	10
Clouded states	7	2	9
PSYCHONEUROSES AND NEUROSES:			
Hysterical type	4	2	6
PSYCHOSES WITH CONSTITUTIONAL PSYCHOPATHIC INFERIORITY			
.....	1	....	1
PSYCHOSES WITH MENTAL DEFICIENCY	12	13	25
UNDIAGNOSED PSYCHOSES	2	....	2
NOT INSANE:			
Drug Addiction without psychosis	8	5	13
Constitutional psychopathic inferiority without psychosis.....	3	....	3
Mental Deficiency without psychosis	3	5	8
Conduct disorder following encephalitis lethargica	2	....	2
Tabes	1	....	1
Post-encephalitis Parkinsonism	1	....	1
Paranoid disposition	1	1	2
Carnal knowledge	1	....	1
Murder	2	....	2
Bigamy	1	....	1
Bad alcohol .....	....	1	1
Birth Palsy with epilepsy .....	....	1	1
Total.....	244	145	389

TABLE No. 13

SHOWING NUMBER ALLOWED OUT ON PROBATION AND RESULTS IN 1930.

Results.	Male.	Female.	Total.
Discharged, Recovered	48	54	102
Discharged, Improved	44	29	73
Discharged, Not Improved	4	7	11
Returned to Hospital	14	10	24
Still out at close of year	52	59	111
Not Insane	14	10	24

TABLE No. 14

RECORD OF DEATHS DURING 1930

Register No.	Sex.	Age.	Years.	Months.	Days.	Cause of Death.
3864	M	70	2	5	....	Cerebral Arteriosclerosis; Chronic Brain Exhaustion.
4662	F	67	....	2	15	Cardiac Failure, Arteriosclerosis.
4431	M	73	....	9	23	Senile Dementia, Chronic Brain Atrophy.
4713	M	45	....	1	16	Exhaustion following erysipelas of face;
4740	M	26	....	....	9	Mental Deficiency with epilepsy.
4526	M	69	....	7	8	Large Multiple Abscesses; G.P.I.
4758	F	66	....	....	7	Old right-sided hemiplegia, Chronic Brain Atrophy, Cerebral Arteriosclerosis.
4615	F	44	....	4	24	Exhaustion, Cardiac Failure, Hypostatic Congestion of Lungs.
4751	F	17	....	....	18	Septic Throat, Laryngitis, Tracheitis, Bronchitis and early Broncho-Pneumonia.
4769	F	30	....	9	11	Broncho-Pneumonia, Pyelitis and Inflammation of Left Hip.
4505	F	35	....	9	....	Pulmonary Tuberculosis, Schizophrenia.
4268	M	54	....	1	5	Pulmonary Tuberculosis, Exhaustion.
3570	F	36	....	3	6	Syncope, Pulmonary Tuberculosis.
4756	M	26	....	1	20	Erysipelas, Post-Encephalitis, Parkinsonism.
4078	F	79	2	....	9	Haemorrhage into Cerebral Abscess, Coma; Sub-acute Infective Endocarditis.
4804	F	30	....	....	15	Senile Dementia, Chronic Brain Atrophy.
184	M	59	18	8	20	Acute Confusional Insanity, Exhaustion.
4261	F	38	1	6	12	Cardiac Arrhythmia, Cardiac Failure, Chronic Epilepsy.
4687	M	77	....	4	8	Dementia Praecox (Catatonic), Exhaustion.
4755	M	56	....	2	....	Senile Dementia, Chronic Brain Atrophy.
4800	M	48	....	1	4	Suicide by hanging; Manic-Depressive Insanity.
4149	M	24	1	10	6	Erysipelas of the Head, General Paralysis of the Insane, Malarial Inoculation.
3859	F	46	2	8	19	Pulmonary Tuberculosis, Exhaustion.
4815	M	77	....	1	9	Chronic Valvular Disease (Double Mitral and Aortic), Failure of Compensation.
3410	F	25	4	1	9	Arteriosclerosis, Chronic Brain Atrophy.
2503	M	63	7	9	26	Pulmonary Tuberculosis, Exhaustion.
						Syncope, Arteriosclerosis, evolving coronary arteries, Occlusion.

Register No.	Sex.	Age.	Years.	Months.	Days.	Cause of Death.
4113	M	80	2	....	16	Paralytic Ileus, Exhaustion, Arteriosclerosis.
2775	F	38	6	9	....	Pulmonary Abscess, Exhaustion.
4566	M	79	....	9	18	Apoplectic Seizure; Senile Dementia, Chronic Brain Atrophy.
4892	M	71	....	....	3	Aspiration Pneumonia.
4851	M	54	....	1	8	Septic Broncho-Pneumonia; Malnutrition, Refusal of food.
4870	F	37	....	....	27	Suicide by throwing herself in front of a train at Ponoka Station.
4742	M	88	....	4	5	Acute Deep-seated spreading Inflammation of right forearm; Exhaustion.
4866	M	51	....	1	5	Broncho-Pneumonia.
388	F	65	17	....	6	Arteriosclerosis, Chronic Valvular Disease of the Heart.
11	M	76	18	10	15	Recurring attacks of Paralytic Ileus Arteriosclerosis and Senility.
4846	M	43	....	1	25	Hypostatic Congestion of Lungs, Broncho-Pneumonia, Epileptiform attacks and stupor.
2141	M	51	9	2	17	Suicide by hanging.
3534	M	26	3	10	18	Lobar Pneumonia.
2560	M	69	7	8	13	Heart Failure, Arteriosclerosis.
1942	F	29	6	8	17	Pulmonary Tuberculosis, Exhaustion.
1049	M	72	13	7	8	Cardiac Failure, Arteriosclerosis.
4854	F	43	....	2	14	Suicide, Throat cut with glass, Haemorrhage.
4563	M	72	....	9	29	Arteriosclerotic Dementia, Chronic Brain Atrophy.
501	F	59	16	5	14	Pulmonary Tuberculosis, Exhaustion.
4872	M	71	....	2	13	Sub-acute Bronchitis, Exhaustion; Senility, Alcoholism and Agitated Depression.
3826	F	77	3	1	4	Cerebral Haemorrhage.
4950	F	51	....	....	23	Acute Mania, Exhaustion.
4806	M	62	....	4	18	Senile Dementia, Chronic Brain Atrophy.
4936	F	65	....	....	29	Senile Dementia, Chronic Brain Atrophy.
3602	M	77	3	10	14	Epileptic-like Convulsions, Coma; Arteriosclerosis.
4814	M	20	....	5	12	Congenital General Paralysis of the Insane, Exhaustion.
3016	M	22	6	....	10	Chronic Pulmonary Tuberculosis, Exhaustion.
4162	M	44	2	3	7	Epilepsy, Broncho-Pneumonia, Cardiac Failure.
1329	M	77	18	7	7	Chronic Mania, Chronic Bronchitis, Pulmonary Abscess, Septic Pneumonia.
4967	M	87	....	2	5	Senile Dementia, Chronic Brain Atrophy; Extensive rodent ulcer on face.
4773	M	82	....	7	28	Cancer of stomach (suspected), Arteriosclerosis, Hemiplegia, Exhaustion.
4336	M	36	....	10	7	Exhaustion, Myocarditis, Cardiac Failure, Huntington's Chorea.
223	F	45	18	8	17	Carcinoma of Uterus, Puerperal Mania.
5029	M	46	....	....	6	Acute Schizophrenia, Exhaustion.
4992	M	60	....	....	29	Perforating ulcer of foot, second acute spreading of inflammation of right leg, etc.
4422	M	70	1	7	28	Arteriosclerosis, Epileptic Seizures, Exhaustion.
986	F	56	14	5	6	Pulmonary Tuberculosis, Tubercular Ulcerations of Intestines.
2251	M	41	6	6	17	Acute Indigestion (Over-eating), Heart Failure Dementia Praecox, Malnutrition.
5055	F	58	....	....	18	General Paralysis of the Insane, Malarial Inoculation.
5066	F	30	....	....	5	Septicaemia due to Streptococcus Haemolyticus.
4696	M	65	1	....	....	General Paralysis of the Insane, Exhaustion.
2378	F	24	8	....	1	Acute Endometritis and Vulva-vaginitis; Epilepsy.
5092	M	46	....	....	7	Chronic Valvular Disease of the Heart; Auricular Fibrillation.

Provincial Mental Institute, Oliver

(CHAS. P. FITZPATRICK, M.D., *Medical Superintendent*)

On the first day of January, 1930, there were in residence 257 male patients. During the year there were 4 admissions, 70 transfers from the Provincial Mental Hospital, Ponoka, 6 probations, 1 elopement and 7 deaths, leaving in residence the last day of December 317 patients. Of the 6 probations, 4 were successful and 2 re-admitted at the end of the probation period. The average number of patients in residence during the year was 246, and the average staff 53. The total number of hospital days was 113,504, and the cost per patient per day 85.7 cents.

The health of the institutional employees and patients has been good. There have been no serious epidemics or outbreaks of disease.

The new building completed in the spring, with a connecting corridor between it and the main building, was opened in May with accommodation for 112 patients. This addition has added considerably to the comfort and care of the patients, besides greatly improving the appearance of the institute.

A good deal of building was carried on during the year. A central kitchen, bakery and dining room building was completed with a tunnel connecting it with power house. Corridors to connect this building with the main building and No. 3 wards will give added accommodation for 80 patients, and the dining rooms in the main and No. 3 buildings can be turned into dormitories. Cottages were built for the bursar and laundryman. The installation of two steam presses in the laundry has greatly improved the efficiency of that department.

The garden and grounds were a very pleasing sight during the summer and fall and attracted many visitors. Considerable cultivated land has been taken into the hospital grounds to provide extra vegetables needed for the increasing population.

The work in the occupational therapy department has improved greatly during the year. Excellent basket work and toys made by the patients were on view, and sold at the exhibition in Edmonton, and a number of complimentary remarks on the exhibits were made to the attendants in charge.

TABLE SHOWING MOVEMENT OF PATIENTS, 1930.

Month.	In Residence.	Adms.	Transfer in.	Transfer out.	Probated.	Eloped.	Deaths.
January	257	.....	.....	.....	.....	.....	.....
February							
March						1	.....
April							2
May		1	70	.....	1	.....	1
June					1	.....	.....
July					1	.....	1
August		1	.....	.....	2	.....	.....
September							
October		1	.....	.....	.....	.....	.....
November		1	.....	.....	.....	.....	1
December	317	.....	.....	.....	1	.....	2
.....		4	70	.....	6	1	7

RECORD OF DEATHS		DENTAL REPORT	
General Paralysis	1	No. Patients Examined	293
Carcinoma of Gall Bladder	1	No. Given Treatment	173
Gangrenous Appendix	1	No. Prophylactic Treatments	134
Broncho-Pneumonia	2	No. Fillings	19
Lobar Pneumonia	1	No. Extractions	197
Arteriosclerosis	1	No. General Anaesthetics	48
	—	No. Dentures Repaired	3
	7		

OPERATIONS IN GROUNDS.

Excavation of grading soil from bursar's cottage and pouring concrete for basement floor and walls thereof. Unloading three cars gravel, two cars sand and one car cement. Excavation for root-house 100ft.×16ft.×5ft., and pouring concrete for roof and walls, also unloading and hauling gravel, sand, cement and tile for construction thereof in addition to three feet of willows, straw and earth placed in alternate layers on roof for frost protection. A 30ft. extension to cabbage house. Excavation of basement and pouring concrete for walls and floor of caretaker's cottage at septic tank, also grading and levelling ground above caretaker's cottage. Excavation for gas tank at garage 8ft.×5ft.×6½ft. Finishing road extension around cottages. Building new railroad spur to coal elevator at power house, 1,100 yards; clay mostly hauled in dump wagons. Grading excavation soil around new service building. Moving with dump wagons and levelling 400 yards excavation soil from tunnel connecting power house with new service building. Concrete footpath laid in new greenhouse, 80ft.×2ft. 6in. Moving 100 loads drifted soil to low spots in ditch on Fort Trail. Planting of trees and shrubs east of power house and south of service building. Making a number of rustic seats and vases for grounds. Supplying Vermilion School of Agriculture with bedding-out plants for grounds. Breaking 20 acres of slough bottom. Cartage of commodities from Oliver station to Institute. Unloading and hauling flour and stores from spur track to storeroom. Unloading season's coal at power house. Planting flowers on farm grounds; stooking farm crop; cartage of milk and eggs from farm to Institute. Delivering swill from Institute to farm.

Provincial Training School, Red Deer

(W. J. McALISTER, M.D., *Medical Superintendent*)

MOVEMENTS OF PATIENTS, 1930.

	Male.	Female.	Total.
Number actually present Dec. 31, 1929.....	87	76	163
Admissions during 1930:			
Voluntary Admissions	14	18	32
Court Commitments .....	....	1	1
Re-admissions .....	....	....	....
Total.....	101	95	196
Discharges, etc., during 1930:			
Transfers	2	....	2
Discharged	3	1	4
Died	1	6	7
Paroled .....	....	3	3
Number actually present Dec. 31, 1930.....	95	85	180
Wards of the Province			22
Wards of Municipalities			130
Wards of Department of Dependent and Neglected Children			2
Wards of Department of Municipal Affairs.....			16
Private Cases			4
Wards of Pensions and Health, Ottawa			2
Wards of Federal Government			1
Responsibility not Established			3

GENERAL REMARKS.

In submitting my annual report for the year 1930, I do so with a feeling of greater optimism than heretofore for the future of our work. We began the year with a population of 163, much overcrowded and handicapped in administration. The close of the year found these conditions greatly relieved by the new construction. The laundry and heating plant house, as they were, within the institution, had always been a real problem for us especially in administration, hence the building of a new laundry and a new power house, together with the completion of the boys' cottage, went a long way towards relieving a discouraging situation. The latter building enabled us to transfer our larger boys from the main building, thereby providing accommodation for some twenty additional patients. True, this additional space did not in any way adequately meet the increasing demand for the institutional care of the feeble-minded population of the Province. This demand, as the years go on, becomes more and more insistent, the more we add to the number and knowledge of suspected cases and our present record of some 600 known extra-institutional defectives, of whom possibly 75 per cent. are of the institutional type, is a sufficient challenge to us for an adequate building programme.

A forward step in extra-institutional activity was initiated during the year, with the appointment of Mr. J. S. Jaffary and others from the Department of Philosophy of the University of Alberta for psychological investigation and general social service work. This movement has resulted in a check up on a good many of our suspect cases not previously investigated. Results to date have been of decided value, but they have tended to complicate the whole problem. Many of the parents of these suspect cases had been in

correspondence with the superintendent of the training school, but as no further action could be taken, due to lack of accommodation, they were, for the most part, content to await further promised construction. The personal investigation initiated by our social workers, however, brought home to the parents in a much more concrete way the value and need of institutional care, with the result that their demands for accommodation have been renewed with added vigor.

In spite of this untoward result, I am of the opinion that if this research work can be carried on, and if possible carried on even more extensively, we should in time get a very complete census of the feeble-minded population of our Province. Until this is done we will never be in a position to intelligently meet the situation with a view to an ultimate solution.

The health of the children during the year was for the most part good. A mortality of seven can not be looked upon as excessive, considering the percentage of low grade mental and physical defective cases which we have in the school.

Co-operation on the part of the various public agencies which come in contact with feeble-minded cases has continued. We get reports from the public health nurses, teachers, occasionally through the juvenile court, and from the civic relief agencies of Calgary and Edmonton. Many inquiries, however, come in direct. These will increase the more the institution and its work become known.

INSTITUTIONAL PROGRESS.

As intimated in my general remarks the new laundry and power house was completed during the year. With the removal of the laundry from the main building the space vacated was converted into a dining room and service kitchen for our staff. Heretofore our staff was accommodated in the general dining room along with the patients. This was not at all desirable, hence the opportunity to correct the condition was most welcome.

The completion of the power house relieved the institution of the dirt and dust due to the constant handling of coal within the building. At the same time it gave us space for much needed storage facilities.

The boys' cottage not only provided accommodation for some 25 of our boys, but also provided accommodation for male staff and facilities for carrying on all academic, sense training and vocational work. We have continued to stress the importance of this part of our training work, and the added accommodation enabled us to co-ordinate the work to a greater extent than we had been able to do previously. At the present time we have 18 children in grade school, an equal number in sense training class, and some 30 taking special vocational work. To date this latter work has been mostly for the benefit of our high grade girls. We did not have the facilities nor yet the numbers to warrant the institution of special vocational work for boys. We hope to do something along this line during the year 1931. So far our boys have been employed, for the most part, on the grounds and in the vegetable gardens. This is a satisfactory outlet for the high grade boys, but it does not take care of the imbecile group, as, as they are incapable of doing constructive work where farming is as intensive as it is carried on here.

We are feeling the need of additional acreage whereby we might be able to initiate regular farm activities to take care of the low grade class of boy.

The facilities for the evacuation of patients in case of fire was investigated during the year, and an additional fire-escape was erected. This, together with the other means of escape which we had, placed the institution in quite a satisfactory position as far as exits in case of an emergency are concerned.

Maintenance of the institution has been kept at a high standard. This is not easily done, due to the destructive tendencies of many of our patients. The superintendent, however, has stressed the importance of a close check-up on breakages, with the result that breakages are repaired practically the same day the damage is done.

In addition to the boys' cottage, heating plant and laundry, there was also constructed a paint and carpenter shop adjacent to, and built at the same time as, the boiler room. This enabled us to remove the frame building which has been used as a paint and carpenter shop, and which was placed far too closely to the main building. We also removed the private garage which was part of the old paint and carpenter shop, and the adjacent greenhouse, thereby clearing the whole area between the main building and the boys' cottage.

A new sewing room was provided for in the new laundry, enabling us to move this department from the fourth floor to the main building. The space thus vacated provided additional accommodation for further vocational work for girls.

A welcome change in office accommodation was provided by taking over a room which had been used previously as a billiard room.

With the removal of the boilers from the basement to the main building, plans were initiated for the enlargement of the kitchen. We have long felt the need of additional kitchen space and better refrigeration facilities. This activity was well in hand at the close of the year. In connection with our kitchen the following new equipment has been installed: an electric toaster, a food conveyer to carry the food to the boys' cottage, and a steam table for the staff service kitchen.

VISITORS.

We had one visit from the Visiting Committee during the month of February. These visits are always appreciated, as it enables the superintendent to point out to them, and through them to the Government, our needs and our hopes for the future of the institution.

We were favored with a visit from our Minister, the Honourable George Hoadley, during the month of August. We also had a visit from Dr. McGhee, Psychiatrist from Ontario, and Dr. Hincks and party in December. Dr. C. A. Baragar, the newly-appointed Commissioner, visited us in October and again in December. Many others especially interested in our work visited the school, and commented very favorably upon its varied activities.

EUGENICS BOARD.

The Eugenics Board appointed at the time The Sexual Sterilization Act was drafted, began functioning during the year. Our first cases for sterilization were presented in January. Other meetings of the board took place during the year, and a grand total of 16 cases was passed upon and eugenically sterilized. In connection with this preventive work, I feel satisfied that the Government has initiated a valuable activity which should materially lessen the problem of the propagation of the feeble-minded. As I have previously pointed out, however, eugenical sterilization does not make the defective normal, nor does it necessarily equip the individual thus sterilized for community life. True, the danger of propagating defective offspring is eliminated, but that is but part of the problem. The difficulty of maintaining themselves still exists. Hence, I would urge that practically all defectives that may come within the jurisdiction of the board be given a course of institutional training before parole, the better to equip them for the maintenance of an independent existence. This, of course, can only be done by providing additional training facilities for high grade adolescent girls and young women.

DENTAL WORK.

Dr. Heacock visited the school in February and December of this year. There are always many cases requiring dental attention, but two visits a year meets the need quite satisfactorily. Occasionally we have an emergency case which we find necessary to take to a local dentist.

INSTITUTIONAL NEEDS.

Infirmary Unit.—While the construction completed during the year has been of decided value, from an administrative point of view it has not solved the problem of accommodation for those urgent cases already on our waiting list. In any consideration of a building policy for the future, I would suggest that the construction of an infirmary be given first consideration. Our present facilities for this class of patient are totally inadequate. We have at the present time 31 beds on the infirmary floor. These have been filled, with the exception of the occasional vacancy, for the past 3 years. In addition, we have the infirmary type of patient on both second and third floors, a real fire hazard (the main building being only semi-fireproof) apart altogether from the administrative and nursing difficulties. The construction of a fireproof building of the bungalow or semi-bungalow type to take care of the cases suffering from cerebral paralysis, epilepsy and other gross physical and mental defects should, therefore, be given early consideration. We should then be in a position to empty the present main building of this class of case, thereby providing room for a greater number of high grade moron, male and female cases—the type that we are now presenting to the Eugenics Board.

Superintendent's Residence.—I would also draw the Department's attention to the need for a superintendent's residence. At the present time he is occupying a suite which could be used to great advantage for institutional purposes. In any consideration of a superintendent's residence the purchase of a site would have to be considered.

Active Treatment Hospital Facilities.—We are urgently in need of hospital facilities. At the present time cases with infectious diseases cannot be properly segregated. This adds enormously to our administrative difficulties. The wing occupied at the present time by the superintendent might, with a few changes, be used for this purpose. Should this arrangement not be considered satisfactory, provision could be made in the new infirmary unit.

Nurses' Home.—With any further increase in population we will have to give consideration to additional accommodation for our nursing staff. At the present time they are housed, for the most part, on the fourth floor of the main building. Having no elevator facilities, this tends to become a real hardship. Apart from this defect, however, we are practically crowded out. The building of a nursing home would not only provide much needed accommodation for our nursing staff, but the fourth floor would easily lend itself to dormitory accommodation for the high grade girls of the adolescent and adult type.

School Room.—I would also draw the attention of the Department to the need of additional school-room accommodation. The present facilities were at no time looked upon as anything but temporary. Our grade schoolroom is becoming overcrowded, more children are reaching the school age as time goes on, and it will not be long before we will find that present facilities will be quite inadequate, even with our present population.

Additional Acreage and Colony Farm.—Further, I would stress the importance of purchasing the acreage immediately adjoining our present holdings. The acreage now under cultivation is proving inadequate for our needs, not only in supplying vegetables for institutional use, but in providing an outlet for our constantly increasing number of working boys. It might not be advisable to purchase much additional high-priced land, but I feel that we should have the acreage immediately to the south of us, and in addition it might be well to consider the purchase of a quarter section contiguous to the institution, where a self-sustaining colony could be established.

Girls' Colony.—As we admit, train and sterilize our high grade feeble-minded girls, we should keep in mind the possibility of their parole to community life again. This is not difficult where the homes are intact and of satisfactory economic and moral standard. Unfortunately, this condition applies in only a small percentage of cases, hence the need of some plan whereby those without homes or friends might be released with a reasonable chance of successful rehabilitation, unsubjected to exploitation and other demoralizing influences.

The girls' colony has proved itself such a practical method elsewhere, that I have no doubt it could be established in Alberta with equal success, especially in the two urban centres, Calgary and Edmonton. I would respectfully urge the Department, then, to consider some such scheme, that our trained moron girl might be given a chance to re-establish herself as a respectable and a respected citizen, and not be impelled, as at present, to take her chances unassisted with those unscrupulous persons who are waiting to trade on her inherent weaknesses.

Additional Accommodation.—Finally, I would like to say it is of the greatest importance that the Government does not lose sight

of the demands for accommodation which are being made on the institution by the citizens of the Province. This demand will doubtless have to be met sooner or later. I would respectfully urge, therefore, that a policy of construction be adopted and carried out—such a policy to cover a nominal expenditure yearly, over a period of years. In this way the capital outlay of any one year would not be great, but the result over a period of years would meet at least to a great extent the insistent demand for institutional care of those already on our waiting list.

EXTRA-INSTITUTIONAL REQUIREMENTS.

The appointment of Mr. Jaffary to take care of a certain amount of the social work at the Red Deer School, in conjunction with the other institutions was a decided forward step in extra-institutional work. I am of the opinion, however, that much more valuable work could be done by a social worker working strictly under and being responsible to the Red Deer institution only. My reasons for suggesting such a worker are as follows:

(1) He would give his whole time to the investigation of mental defective suspects.

(2) The co-ordination of such findings would in time enable the Superintendent of the institution to more fully evaluate these findings, that is, he would in time get a fairly accurate census of the feeble-minded population of the Province and, at the same time, get a knowledge of the areas in which the greatest incidence of feeble-mindedness is found.

CASES OF MENTAL DEFECT REPORTED AND ON FILE AS AT DECEMBER 31, 1930.

Awaiting Admission:	Male.	Female.	Total
Applications on file	101	89	190
Court Commitment cases	3	....	3
	104	89	193
Mental Defective Suspects reported:			
Prior to 1923	111	56	167
Reported during 1923	27	32	59
Reported during 1924	20	14	34
Reported during 1925	18	15	33
Reported during 1926	26	22	50
Reported during 1927	9	18	27
Reported during 1928	19	21	40
Reported during 1929	26	29	55
Reported during 1930	26	26	52
	173	177	350

Suspects and applicants reported prior to the year 1923 are not shown in totals owing to the uncertainty of their present whereabouts.

SUMMARY.

	Male.	Female.	Total.
Mental Defective Residents at Red Deer.....	95	85	180
Ex-patients (Paroled, etc., 1923-1930).....	25	11	36
Applicants awaiting admission	104	89	193
Reported Suspects as at Dec. 31, 1930.....	173	177	350
Mental Defective Residents at Ponoka.....	....	....	72
Mental Defective Residents at Oliver .....	....	....	13
Cases reported, sex unascertained .....	....	....	6
Total number of known Defectives	397	362	850

CHRONOLOGICAL AGES OF NEW ADMISSIONS

	Male.	Female.	Total.
Under 5 years	1	1	
From 5 to 10 years....	2	1	3
From 10 to 15 years....	5	7	12
From 15 to 20 years....	5	4	9
From 20 to 25 years....	2	5	7
From 25 to 30 years....	....	....	....
From 30 to 35 years....	....	....	....
From 35 upwards	1	1	
Totals	14	19	33

CHRONOLOGICAL AGES OF TOTAL POPULATION

	Male.	Female.	Total.
Under 5 years .....	....	2	2
From 5 to 10 years..	5	1	6
From 10 to 15 years..	27	25	52
From 15 to 20 years..	37	21	58
From 20 to 25 years..	13	18	31
From 25 to 30 years..	6	11	17
From 30 to 35 years..	5	3	8
From 35 upwards	2	4	6
Totals.....	95	85	180

SUMMARY OF BIRTHPLACES—PATIENT—PARENT

	Patients.	Parents.	
		Father.	Mother.
Alberta	122	....	8
Other Provinces	26	55	46
England	8	30	31
Ireland .....	....	4	4
Scotland .....	....	5	11
U.S.A.	16	28	29
Slavic	1	21	21
Others	1	12	10
Unknown	6	25	20

SUMMARY OF INFORMATION—PATIENTS

			Male.	Female.	Total.
Population			95	85	180
Residence:					
Urban	67	Rural			133
Religion:					
Roman Catholics	32	Protestants			118
Greek Catholics	11	Unknown			19

ECONOMIC STATUS—HOMES (PARENTS)

Comfortable	51	Dependent	49
Marginal	71	Unknown	9

INFIRMARY TYPE OF PATIENT

Idiot.			Imbecile.			Grand Total.	Percentage.
Male.	Female.	Total	Male.	Female.	Total.		
20	14	34	6	3	9	43	23.9 %

SUMMARIES OF INFORMATION—MENTAL STATUS, PATIENTS

Classification.	Number Present.	Percentage.
Idiot	73	40.5 %
Imbecile	71	39.5 %
Moron	36	20.0 %
M. D. & Psychotic	1	.5 %
M. D. & Psychopathic	3	1.6 %
M. D. & Epileptic	36	20.0 %
Mongolian	12	6.6 %

DISEASE INCIDENCE IN FAMILY HISTORY.

Epileptic	9	Alcoholism	18
Psychotic	20	Syphilis	5
Mental Defective	75	T.B.C.	14
Neuropathic	19	Deafness	4
Psychopathic	2	Mutism	1

MORTALITY TABLE, 1930

Cause of Death.	Male.	Female.	Total.
Lobar Pneumonia .....	....	3	3
Cardiac Failure and Idiocy .....	....	1	1
Pulmonary T.B.C. ....	....	1	1
Status Epilepticus	1	....	1
Cerebral Paralysis .....	....	1	1
Total.....	1	6	7

DISCHARGES

	Deported.	Trans- ferred.	Paroled.	Re-ad- mitted.	Deaths.	Dis- charged.
Idiot					5	2
Imbecile					2	2
Moron			3	....	....	....
Psychoses		1	....	....	....	....
Neuropathic (not feeble-minded)						
M.D. & Psychopathic						
M.D. & Epileptic				4	....	....
M.D. & Juvenile General Paresis		1	....	....	....	....

Central Alberta Sanatorium, Calgary

(A. H. BAKER, M.D., *Medical Superintendent*)

This is the sixth report since the institution passed under the control of the Province on July 1, 1925. The anti-tuberculosis work of the Provincial Department of Health centres about the Sanatorium.

The total patient days for 1930 were 74,454, and exceeded those of the previous year by 6,853. Of the total, approximately 75% were infirmary patient days, and represented the proportion of treatment which was essentially of the hospital type. The per diem patient cost for the fiscal year ending March 31, 1931, was \$2.67, which was eleven cents less than during 1929.

The medical work of the institution was carried along the lines of previous years, likewise the clinic and follow-up work was continued. Regular clinics were held at the Sanatorium and in Edmonton and Calgary, while a member of the Sanatorium medical staff visited 63 other points in the Province and co-operated with the practising physicians in the examination of patients. The number of new cases of tuberculosis discovered in this way was 139. This number, of course, does not include cases diagnosed elsewhere by the physicians of the Province.

The importance of thorough and careful dental treatment is being increasingly recognized in the care of the tuberculous. This service is being given to all patients as a regular part of the Sanatorium treatment, and throughout the year Dr. A. E. Heacock, Provincial Dentist, has continued his work in a most satisfactory manner.

ALTERATION AND NEW EQUIPMENT.

No extensive building programme was undertaken, but certain minor changes were effected. Steam line tunnels were laid to the four westerly buildings. A new water pump was installed and a filtration plant equipped, so as to insure an ample supply of good water at all times irrespective of the condition of the source, the Bow River. A building was constructed to house the paint, carpenter and plumbing shops, so that no longer do these services constitute a fire hazard in the main infirmary. Natural gas has been installed in the power house and kitchens, and has effectively removed certain inconveniences associated with the use of coal. Extensions were made to the cement walks.

A tennis court, rink and football field were put in order for the recreation of employees.

The old hand lift in the service building has been replaced by a modern electric elevator, and since then it is gratifying to record that near-tragedies in its use have disappeared. The food service has been improved through the installation in all diet kitchens of electric refrigerators, and through the purchase of proper food trucks.

The X-ray department has been installed beside the operating room. This change, along with the installation of certain modern apparatus, has brought most gratifying results in the saving of time and inconvenience to both patients and staff.

SURVEY OF INDIAN SCHOOLS, BLOOD RESERVE, CARDSTON, ALBERTA.

During June a survey was made of two Indian schools. One hundred and ninety-seven examinations were made, and four cases of definite tuberculosis found. Nineteen other examinations were made, and six cases of tuberculosis were found. The number of positive cases would probably have been increased had a more general use of X-ray examination been possible. Every possible help was given by those in charge of these schools, and it is hoped to continue this work from year to year. It is apparent that the Indians of the Province comprise a very definite source of infection, and must be considered in the preventive work.

I have still to reiterate the opinion expressed in last year's report, which is that there is in Alberta a real shortage of beds for the treatment of tuberculosis. The death rate has increased during the past few years. It is impossible to determine definitely the cause of the increase, but presumably the present economic depression is having its effect on the health of many. Just as the deaths increase, so will the source of infection to the balance of our population, and it would appear reasonable to expect a greater need of Sanatorium beds. In this connection the tuberculous children should not be overlooked. At present tuberculous children, who require institutional treatment, must be admitted to the general hospitals, where as a rule proper facilities are not provided, or to the Sanatorium, which has no children's department, and so must admit them to adult beds. These needs are most keenly felt by those who are sick and those directly interested in them. Unfortunately it is only when this disease directly affects a family that its members become tuberculosis conscious.

Tuberculosis patients group themselves into three classes as regards their response to sanatorium treatment, and it would appear expedient to take this into consideration in any tuberculosis programme in this Province.

1. Those who respond favorably to Sanatorium treatment, and regain within a reasonable time that degree of health which enables them to be economically independent. The amount of disease is a pertinent factor here. Sanatorium treatment is indicated.

2. Those who improve under Sanatorium treatment and are able to be up and about, and who may appear healthy, yet can never be economically independent. After a period of treatment these require only maintenance with a minimum of supervision. In some instances these people can return home; in others, special provision is necessary.

3. Those who are permanently and totally disabled, and require greater care. Some of these may have a life expectancy of several years, and throughout this period require expert nursing and medical care to insure for themselves the greatest degree of comfort and for others the minimum of exposure to infection. A period of Sanatorium treatment may be indicated. Home care is possible in some cases, while the remainder require institutional care in a sanatorium or hospital.

The Sanatorium population always includes a number of patients of school age, who have become sick in either the primary or secondary school period. In addition non-English speaking patients frequently are eager to learn English, and many others are desirous

of further study so that they may be able to more successfully regain an independent position in life. It is a serious business for young people to be totally disabled for months or years in an institution, and then to attempt to take their places in the ordinary world of work. While every possible effort is being put forth to restore patients to health, attention should be given likewise to the rendering of them on discharge economically independent. To this end I respectfully submit that a teacher should be appointed to our staff at the earliest possible moment.

Throughout the year regular religious services have been very acceptably conducted by the Very Reverend Dean Robinson, Rev. Father McDonald and Rev. Capt. Muncaster. We appreciate the splendid contribution of these men to the life of the institution.

Grateful acknowledgment is made of the many gifts and services which have been given by many people and organizations interested in the Sanatorium patients.

In March, Dr. B. C. Armstrong, travelling diagnostician, resigned from the staff to enter private practice. His place has been taken by Dr. G. R. Davison, who came to us from the Saskatchewan Anti-tuberculosis League.

CLASSIFICATION OF DISCHARGED PATIENTS, 1930.

On Admission.		Residence.				On Discharge.					
		Total.	T.B.	Not over	Over						
		No.	%	31 days.	31 days.	A.	AA.	Q.	I.	U.	D.
I.	No Disease	7	....	6	1	....	....	....	....	....	....
II.	Undiagnosed	3	....	0	3	....	....	....	....	....	....
III.	Non-T.B.	22	....	4	18	....	....	....	....	....	2
IV.	T.B. inactive	8	....	5	3	....	....	....	....	....	....
Total.....		40	22.2	15	25	....	....	....	....	....	2
V. T.B. Pulmonary—											
1. Clinical (no bacilli found):											
Minimal		A.....	12	....	1	11	....	1	6	4	1
		B.....	....	....	....	....	....	....	....	....	....
		C.....	....	....	....	....	....	....	....	....	....
Mod. Advanced		A.....	17	....	1	16	....	2	3	8	4
		B.....	1	....	....	1	....	1	....	....	....
		C.....	....	....	....	....	....	....	....	....	....
Far Advanced		A.....	4	....	....	4	....	....	2	....	2
		B.....	1	....	....	1	....	1	....	....	....
		C.....	1	....	....	1	....	....	....	....	1
Total.....		36	20.0	25.7	2	34	....	3	11	14	5
2. Positive (bacilli found):											
Minimal		A.....	....	....	....	....	....	....	....	....	....
		B.....	....	....	....	....	....	....	....	....	....
		C.....	....	....	....	....	....	....	....	....	....
Mod. Advanced		A.....	16	....	....	16	....	5	9	1	1
		B.....	6	....	....	6	....	....	2	1	3
		C.....	1	....	....	1	....	1	....	....	....
Far Advanced		A.....	21	....	....	21	....	6	8	4	3
		B.....	19	....	1	18	....	1	7	4	7
		C.....	28	....	2	26	....	....	1	6	21
App. Hopeless		.....	8	....	4	4	....	....	....	2	6
Total.....		99	55.0	70.7	7	92	....	13	27	18	41
Total Pul. T.B. (Active)		135	....	....	9	126	....	3	24	41	23
VI. T.B. Non-Pulmonary		5	2.8	3.6	1	4	....	....	....	3	1
Grand Total.....		180	....	....	25	155	....	3	24	41	26

Explanation of Abbreviations and terms used: The standard of classification is that of the National Tuberculosis Association. Minimal, Moderately Advanced and Far Advanced refer to anatomical extent of disease, while "A", "B" and "C" signify symptoms in order of increasing severity.

"A" Arrested; "AA" Apparently Arrested; "Q" Quiescent; "I" Improved; "U" Unimproved; "D" Died.

N.B.—Only those in residence over 31 days are classed as treated.

TOTAL NUMBER OF PATIENT DAYS	
D.P. and N.H.	3,898
Civilian	70,556
Total.....	74,454

INFIRMARY DAYS	
D.P. and N.H.	3,458
Civilian	53,244
Total	56,702

	Military.	Civilian.	Total.
Patients treated during 1930	5	191	196
Patients in Sanatorium Jan. 1, 1930.....	20	365	385
Remaining in Sanatorium Jan. 1, 1931.....	12	192	204

CLASSIFICATION ON ADMISSION OF 180 DISCHARGED PATIENTS			
No Disease	7	Tuberculosis, Pulmonary (Active).....	135
Undiagnosed	3	Tuberculosis, Non-pulmonary	5
Non-tuberculous	22	Total.....	180
Tuberculosis, Inactive	8		

CLASSIFICATION OF 126 "TREATED" CASES OF PULMONARY TUBERCULOSIS				
On Admission.		On Discharge.		
		Benefitted.	Non-benefitted.	Died.
Minimal	11	11	....	....
Moderately Advanced	40	30	6	4
Far Advanced	71	26	13	32
Apparently Hopeless	4	....	2	2
Totals	126	67	21	38

DIAGNOSIS OF NON-TUBERCULOUS CASES			
Bronchiectasis	3	Pleurisy with effusion and cardiac hypertrophy	1
Carcinoma of lung	1	Rheumatic carditis	2
Empyema	1	Squamous-celled epithelioma of the pharynx	1
Hydronephrosis	1	Malnutrition	1
Lues	1	Rheumatic scleritis and asthma ..	1
Pulmonary Abscess	2	Upper respiratory infection	1
Pulmonary fibrosis with bronchiectasis and asthma	1	Septic tonsils	2
Chronic bronchitis and emphysema.....	1	Total	22
Pneumonokoniosis	1		
Pyopneumothorax with probable malignancy	1		

HELIO THERAPY REPORT		
	Treatments.	Number of Patients.
Sun Baths	1,407	24
Air Baths	7,116	77
Laryngeal Treatments .....	....	6
Pharyngeal Treatments .....	....	3
Mercury Quartz Lamp Treatments	5,977	67

SUMMARY OF DENTAL WORK DONE			
Patients examined	734	Extractions	230
Patients treated	553	Plates	14
Prophylaxis	242	Repairs to Plates	1
Fillings	225		

OPERATING ROOM REPORT	
Pneumothorax:	
Number under treatment January 1, 1930	40
Number new cases begun	15
Number old cases recommenced	1
Number terminated during year	14
Number under treatment December 31, 1930	42
Number unsuccessfully attempted during year	8
Number treated during year	56
Pneumothorax refills	1413
Intravenous Injections CaCl 2	295
" " Neosalvarsan	22
" " Glucose and Saline	8
" " Saline	1
Aspiration Air—Pleural Cavity	11
Aspiration Fluid—Pleural Cavity, with air refill	6
" " " " with irrigation	2
" " " " with gomenal replacement	20
" " Abdominal Cavity	13
" Psoas Abscess (2 patients)	26
" Abscess (other than these)	14
Rib Resection	1
Phrenic Avulsion	1
Injection of Lipiodol Intratracheal	6
Injection of Lipiodol into Sinus	1
Test meal	1
Lumbar punctures	6
Intra Spinal Injection Serum	2
Irrigation of Bladder	44
Irrigation of Antrum	1
Plaster Splint to Limb	2
Plaster Cast to Body	1
Plaster Shells (complete)	2
Basal Metabolism Tests	23
Excision Sebaceous Cyst	1
Dressings and Examinations	40

DEPARTMENT OF PUBLIC HEALTH

CLINICAL LABORATORY EXAMINATIONS

Sputum:		Guinea Pig Inoculation	24
In Patients	2403	Guinea Pig Autopsies	25
Out Patients	152	Feces	5
Staff	45	Other Examinations	116
	2600		3479
Urine	2508	Milk tests	50
Blood	774		
Spinal Fluid	5		6129
Pleural Fluid	22		

REPORT OF CLINICS HELD

	Clinics held.	Ex-Pts. Exam.	New T.B. Cases.	Others.	Total.
Sanatorium	52	28	27	82	137
Edmonton	23	62	41	216	319
Calgary	47	47	20	211	278
Throughout Province	63	89	41	208	338
Indian School, Cardston .....	....	....	10	206	216
Staff at Sanatorium .....	....	....	....	....	81
	....	226	139	....	1369

X-RAY REPORT

X-RAY REPORT			
Radiographic:			
Chest	632	Hips and Pelvis	6
Gastro-Intestinal	33	Elbow	3
Spine	34	Kidney	3
Knee	1	Shoulder	2
Dental	52		
Sinus	10		779
Ankle	3		
Fluoroscopic: Chest (Gas cases)			
		(Others)	1092
		Gastro-Intestinal	213
		Barium Enema	267
			9
			1581

43 patients were given the gastro-intestinal series during the year.
4 patients were given barium enema.

RESIDENCE OF PATIENTS

CITIES:

Calgary	35	Medicine Hat	7
Edmonton	28	Red Deer	2
Drumheller	3	Wetaskiwin	2
Lethbridge	5		

TOWNS:

Beverly	1	Macleod	1
Coronation	1	Pincher Creek	2
High River	1	Stettler	1
Gleichen	1	Three Hills	1
Hanna	2	Vermilion	1
Leduc	2		

VILLAGES:

ALLIANCE:			
Alliance	1	Mannville	2
Andrew	1	Mundare	1
Black Diamond	1	Newcastle	1
Bonnyville	1	St. Paul	1
Coalhurst	2	Rocky Mountain Park	1

LOCAL IMPROVEMENT DISTRICTS:

No. 67	1	583	1
68	1	584	1
71	1	635	1
153	1	726	1
181	1	769	1
252	1	796	1
553	1		

MUNICIPAL DISTRICTS:

No. 64	Forty Mile	1	456	Parkland	2
92	Excelsior	1	457	Lloyd George	4
128	Harmony	1	459	Bigstone	2
190	Sheep Creek	1	458	Montgomery	2
221	Springbank	1	485	Patricia Lake	1
242	Cereal	1	486	Beaver Lake	2
244	Flowerdale	1	489	Liberty	2
250	Beddington	1	513	Ukrainia	2
272	Golden Centre	1	514	Sobor	1
275	Hand Hills	1	515	Norma	2
277	Michichi	1	518	Strathcona	1
278	Carbon	2	517	Clover Bar	1
280	Sturubud	1	548	Sturgeon	2
301	Canmer	1	551	Champlain Morthen	1
308	Ghost Pine	2	552	Pembina	1
311	Waterdale	1	573	St. Vincent	1
338	Hays	1	576	Smoky Lake	1
392	Vale	1	577	Unity	2
393	Huamha	1	578	Opal	1
396	Haig	1	579	Hazelwood	1
426	Melrose	1	740	Bear Lake	1
428	Water Glen	1	857	Peace	1
453	Buffalo Coulee	1			

CLASSIFICATION OF PATIENTS DISCHARGED IN 1930 (180)

I.—SEX:		II.—SOCIAL:	
Male	87	Married	81
Female	93	Single	94
	180	Widows	2
		Widowers	3
			180
III.—AGES:			
Under 5 years of age	0	30 to 39 years	36
5 to 9 years	3	40 to 49 years	24
10 to 14 years	10	50 to 59 years	11
15 to 19 years	24	60 to 69 years	1
20 to 29 years	71		180
IV.—RELIGION:			
Bible Student	2	Lutheran	19
Baptist	13	Pentecostal	2
Christian Church	1	Presbyterian	15
Church of God	1	Roman Catholic	32
Church of England	28	United	42
Greek Catholic	13	Not Known	4
Greek Orthodox	5		180
Hebrew	3		
V.—OCCUPATIONS (Women):			
Cashier	1	Nurse in training	3
Clerk	2	Postmistress	1
Dressmaker	1	Student	17
Furrier	1	Stenographer	2
Housewife	46	Teacher	2
Housework at home	2	Waitress	1
Maid	7	No occupation	4
Nurse	3		93
VI.—OCCUPATIONS (Men):			
Bank Clerk	2	Merchant	3
Blacksmith	1	Miner	3
Carpenter	3	Orderly	1
Chiropodist	1	Painter	2
Clerk	3	Plasterer	1
Car Repairer	1	Railway Agent	1
Cooper	1	Section Man	1
Engineer	1	Salesman	1
Farmer	16	Soldier	1
Furniture Worker	1	Student	10
Hotel Keeper	1	Teamster	1
Interior Decorator	1	Teacher	3
Jeweller	1	Telephone Worker	2
Laborer	16	Time Keeper	1
Laboratory Technician	2	Truck Driver	1
Lawyer	1	None (Child)	1
Manager	2		87
VII.—NATIVITY:			
Alberta	40	Jugo-Slavia	1
Canada	42	Malta	1
Austria	4	Norway	5
Belgium	1	Poland	8
Bohemia	1	Russia	4
Czecho-Slovakia	2	Roumania	1
England	22	Scotland	9
France	1	Serbia	1
Finland	2	Sweden	2
Galicia	1	United States	25
Germany	2	Ukraine	2
Holland	2		180
Ireland	1		
VIII.—LENGTH OF RESIDENCE IN ALBERTA:			
Under one year	4	15 to 19 years	29
1 to 2 years	4	20 to 24 years	33
2 to 3 years	4	25 to 29 years	18
3 to 4 years	8	30 to 40 years	3
4 to 5 years	5	Born in Alberta	40
5 to 9 years	13		180
10 to 14 years	19		
IX.—RACIAL ORIGIN:			
Austrian	4	Finnish	3
Breed	3	Norwegian	12
Belgian	1	Maltese	1
Bohemian	1	Polish	7
Danish	2	Roumanian	1
Dutch	2	Russian	4
English	47	Servian	1
French	1	Scotch	28
French-Canadian	10	Slavic	3
Galician	2	Swedish	5
German	10	Ukrainian	8
Hebrew	3	Not known	4
Irish	17		180

